Clinical medicine

The American Journal of Clinical Medicine

DEPENDABLE THERAPEUTIC FACT FOR DAILY USE

EXACT
RIGHT
TRUE

Mistakes--Don't Make Them!

¶ Don't expect everyone in the world to agree with you. Perhaps the other man may be right!

¶ Don't fall into the error of believing that "all men are liars." You need neither a lantern nor a search-light to find truth and honor.

¶ Don't forget that in medicine, as elsewhere in life, every moment counts, and that he succeeds best who sees clearly, thinks quickly and acts efficiently, having within himself the initiative that is strength.

¶ Don't forget that the most skilled sculptor cannot carve a Winged Victory out of a marble filled with flaws, or make a perfect Venus with a hammer whose face is nicked and marred.

¶ Don't forget that summer is the time for rest for your tired body and for the rehabilitation of your tired mind—yet not for rest only. Study now the books laid aside last fall. Prepare now for victories next winter.

¶ Meanwhile—"clean out, clean up, and keep clean." Make no mistake. Therein lies the secret of success in the treatment of the summer ailments.

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The American Jou[illegible] Clinical Medicine

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DEVOTED TO ACCURACY, DEPENDABILIT[illegible] IN EVERY DEPARTMENT OF MEDICINE
AND TO THE SA[illegible] THE DOCTOR

GENERAL EDITORIAL STAFF:

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Fourth-of-July Wounds

NOW that the annual slaughter of the innocents is once more at hand, every physician should be prepared for the wounds following the explosion of firecrackers, from the harmless (!) toy pistol, and from the various other implements used in the uncivilized celebration of our national holiday, which do such deadly work at this time of the year. Tetanus, or lockjaw, will be epidemic for the next two or three weeks, so the physician should be ready not only to treat it, but also prepared to use proper measures for its prevention.

The tetanus bacillus is anaerobic, that is, it lives and multiplies only in the absence of air—in other words, if air can be admitted freely to every wound, the danger from tetanus will disappear. But that is the difficulty. Most of the wounds are punctured, torn and jagged, and they are on the exposed portions of the body, liable to contact with street dirt which may be, and often is, loaded with these deadly bacilli (largely from horse manure), which are driven in underneath the skin, into remote recesses where they are not easily reached by ordinary methods of disinfection.

When called to a case of this kind, therefore, the first duty of the physician is to see that every wound is opened freely down to the bottom. Especially is this necessary in the case of wounds on the hands and feet; and if the wound is situated where the skin is tough and resisting, drawing around the external opening in such a way as to close it unless great care is exercised, the doctor should increase the size of every opening of this kind, wash or swab out the wound from the very bottom, using bichloride solution, and then keep it open by loose dressings which will permit free access of air. Under no circumstance must the wound be sewed or covered with adhesive plaster.

As a prophylactic measure for the more severe wounds, it is always advisable to administer immunizing doses of antitoxin. While this agent is of limited usefulness when lockjaw has developed, it has been demonstrated that if given early, before the inception of the disease, it is efficient as a preventive measure. It is the neglected cases, most of which are considered of minor importance, that cause the trouble. Insist upon seeing these cases early and treat them

energetically from the very start. Doing this you will save many lives.

What if tetanus develops? The tetanus antitoxin may be given, though it is much less effective as a curative than as a prophylactic agent. A more efficient remedial agent, at this stage, is the hyoscine-morphine combination. A number of cases of cure have been reported from its use. The convulsions can be arrested and the patient kept quietly asleep if it is given in efficient doses, the patient's strength thus being conserved until the crisis has passed, at least in a considerable percentage of cases.

Furthermore, if I had a case of this kind to treat I would fill the patient full of calcium sulphide. It could do no harm and I believe that it would favorably influence the outcome in many instances. Let us have reports on tetanus next month.

Stand fast on the faith in your own true self,
All effort is yours to choose it;
The world is full of the possible,
For you to gain or lose it.
—Wm. J. Lampton.

STROPHANTHIN

The reason why strophanthus has not made more friends among the medical profession is the exceeding unreliability of the preparations of this valuable drug found on the market, one reason being, as has been pretty well established now, that its fluid representatives deteriorate so rapidly that no dependence whatever can be placed upon them.

However, the pure active principle, the glucoside strophanthin, crystallizable, of definite composition, and unchangeable, has been isolated. On this substance studies have recently been made at the Bellevue Hospital of New York, where it has been tried out in more than fifty cases, including disease of the mitral and tricuspid valves, interstitial myocarditis, with valvular lesion and without valvular lesion, and valvular disease attended by marked nephritis.

Pulse tracings and blood-pressure records were employed to control clinical observations. The doses ranged between 1-5 and 1 milligram daily, the average being less than 1-2 milligram, or about 1-150 grain, as the twenty-four-hour dose. The effects reached their greatest height after three or four hours and commenced to subside after ten hours. The remedy was used hypodermically or intravenously, because when employed by the stomach absorption was slow and uncertain.

The conclusions from these experiments are that when compensation failed in interstitial myocarditis, or in any form of chronic valvular disease, this remedy given intramuscularly was invaluable, possibly the most valuable of known drugs. For continuous use it was not so satisfactory as digitalin.

THE BEGINNINGS OF DISEASE

Many organic maladies have not at the start characteristics so evident that they attract attention. A large number establish themselves insidiously, by a sort of subterranean work or undermining; and it is only when a pronounced material lesion has been formed that the victims apply for relief—unhappily too late. A new method is announced—from all quarters comes a flood of demands for cures. But medicine works no miracles, and we do what we can—relieve when a cure is hopeless.

We must take disease at the outset. It is in the jugulation of disease that the active principle excels. This is at once a doctrine and a method.

The doctrine is that of vitalism; we seek to regulate the vital movements. If modern medicine has turned from this it is because she takes too much account of organic lesions, in which she is in the habit of seeing the whole malady.

The truth is, that the material lesion has followed the vital, or functional, disorder. and this has induced dynamic difficulties. These have been difficult to suppress because there has been a continuously acting irritant present—a thorn, as Van Helmont used to say.

The method is that of remedies dominant and variant, the former aimed against the

pathologic element of the disease, the variants against the symptoms peculiar to the individual case. For acute maladies, acute treatment; for chronic forms, chronic treatment.

We are all a part of a commercial or social system, and under the natural law of compensation we are not allowed to take very much out unless we put in something.
—David Gibson.

TYPHOID FEVER AND INTESTINAL ANTISEPSIS

The Northwestern Lancet for April gives an interesting description of a typhoid epidemic at Mankato, Minn., with charts illustrating the relations of the disease to the water supply. The evidence again demonstrates the certainty with which the excretions of typhoid patients spread this disease.

Once more we ask: Would it be possible for this epidemic to occur if the intestinal-antiseptic treatment were instituted at the beginning and completely carried out throughout the disease, and as long as the bacteria characteristic of it were given off with the stools? Not that we would for a moment urge dependence on this measure alone, without disinfection of the stools. The latter is so easy, since the publication of Nuttall's experiments at Johns Hopkins, that its neglect is inexcusable.

Nuttall has shown that fresh whitewash perfectly disinfects the stools, provided they are left in contact with them long enough. Few nurses seem to realize the necessity of a timely exposure of the germ-laden stools to the disinfectant, but seem to think that momentary contact is all that is necessary. When the stools are deposited in the whitewash they should be allowed to stand at least one hour, in order that they may be thoroughly permeated by the disinfectant, and every possibility of the escape of the germ should be prevented. Were this done in every case of typhoid fever it would not be long before that disease became extinct. That it exists is simply due to the ignorance and neglect of the medical profession and the nurses, in this respect.

If the patient's bowels were disinfected by the free use of the sulphocarbolates throughout the attack, could there be any further infection? The writer has employed this method for nearly thirty years, and in that period he has not had a solitary case where the malady spread beyond the person first attacked. But what is the general experience on this point? Will others rise and tell us their observations?

THE DEATH OF ROBERT KOCH

In the June number of CLINICAL MEDICINE we could refer only very briefly to the loss which the scientific world sustained in the death of Dr. Robert Koch, which occurred on May 27 last. Both the medical and the lay press have since published full accounts of the life and work of this great medical investigator and discoverer, to whom we owe, more than to anyone else, the success which has attended the struggle of the civilized world against tuberculosis.

There cannot be a single physician who does not know of Robert Koch and of his wonderful and important contributions to medical knowledge. Among his discoveries stand foremost that of the pathogenic virus responsible for anthrax, tuberculosis and cholera. The discovery of the tubercle bacillus, which was announced before the Berlin physiological society in March, 1882, was made in such a complete and definite form that Koch was acknowledged for all time as a great scientist and investigator. Every link in the chain of his proofs was perfect; there was no room left for any doubt and the profession had but to accept the gift and to work upon the knowledge imparted by it.

In tuberculin, which was first made known by Koch to the profession in 1890, the foundation was laid for the etiological treatment of tuberculosis, which, in addition to the accepted general methods of treatment and prophylaxis, will eventually enable us to limit and ultimately, we hope, to overcome this plague.

It is hardly necessary, or in fact possible, to discuss the many phases of Koch's in-

vestigations and discoveries. They have been of the greatest importance and have helped to develop the science of bacteriology; and not only that, but through them prophylaxis has become what it is today, a science, instead of as in former times, a series of attempts, ill-defined because not based upon proper information, to counteract and limit the spread of infectious diseases.

Koch was fortunate in that his great merit was fully recognized and acknowledged during his life time. Contrary to the fate of other discoverers, he was honored both in his own country and abroad. After having been called to Berlin as Regierungsrat and a member of the Imperial Health Office, he became a professor in the medical faculty of the Berlin University.

However, teaching was not much to his taste and he soon gave up his lecture courses in order to devote himself entirely to research and to the direction of the institute for the study of infectious diseases which had been founded for him. He soon was elevated to other dignities, and became Privy Counsellor and Excellenz, titles which are hardly appreciated in this country but which mean a great deal abroad. Only a few years ago a movement was set on foot which found the enthusiastic support of the whole civilized world, and which further showed the esteem in which Koch was held, namely, the Koch-Stiftung, an institution devoted to the study and investigation, on a most extensive scale, of infectious diseases and their prevention.

Koch died at a comparatively early age, having been born in 1843, so that he was only sixty-seven years old. There is no doubt but that the hardships which he suffered during his travels, in the pursuit of his scientific investigations, tended to shorten his life, which might otherwise have spun out to a span like that of Virchow and other scientists.

But although the master-mind is gone, he has left us his inheritance. His ideas and his discoveries are common property and are being developed and extended. His name will forever stand foremost among those of great physicians and other benefactors of the human race.

Let us no longer meanly live,
Nor cringe, and crawl, and plod;
But walk this floating sphere of light
Like kings and priests of God,
Who go with joyful mien erect
As they who wondrous things expect.
—Frank L. Rose

ST. LOUIS, 1910

We had the pleasure of meeting hundreds of members of the "CLINIC family" during the meeting of the American Medical Association in St. Louis, June 6-10. With some this was simply the renewal of old acquaintance; we enjoyed shaking hands with others for the first time. We knew we had many, very many friends in all parts of the country, but never before have we fully realized what warm friends and what royal good fellows they are.

There was a registration of a little more than 4,000 members of the Association. This was considerably larger than that at Atlantic City a year ago, but a good deal less than at Chicago, in 1908. Of the section meetings we can say but little, since we did not have the time to attend very many of them; but such as we did attend were fully up to the average. No startling discoveries or radical changes in medical practice were recorded.

Medical politics was much discussed in hotel lobbies, but did not figure very much, openly, in the business sessions of the House of Delegates, where the "steam-roller" pursued its uneventful course. Dr. John B. Murphy of Chicago was elected President of the Association. It seems to be the sentiment that this was a concession to the "insurgent" element, Murphy being like the man languishing in purgatory, who was slow in selecting his eternal habitation, because "he had friends in both places." Perhaps he may be able to bring the fighting elements, the "ins" and the "outs," closer together. We venture no predictions.

Dr. George H. Simmons tendered his resignation from the office of General Secretary. This was supposed also to be a concession to

the insurgency, which has been demanding the separation of the offices of Secretary and Editor. The unexpected happened when Dr. Simmons was again reelected to the dual office, over his own voiced protest, by acclamation, and without a dissenting voice. It is said that the attack will be renewed, but along other lines. Dr. Lydston threatens an appeal to the courts as to the legitimacy of elections held outside of Illinois.

Some important changes were made in the constitution and by-laws of the Association, perhaps the most important thing being a revision of the membership rules which makes it imperative for every member not only to pay the annual assessment but also the subscription to the *Journal* of the Association. "Any member who, for one year, has failed to pay his annual assessment and the subscription to the *Journal* shall forfeit his membership thirty days after notice from the General Secretary has been mailed to his last known address." The insurgency protests that this is ramming the *Journal* down the members' throats, with a vengeance!

Another Council is created, that on Health and Publicity. This is to take the place of two standing committees.

In the election of trustees Frank J. Lutz of St. Louis takes the place of Philip Marvel of Atlantic. City. Otherwise the Board is unchanged. E. E. Montgomery is the new first vice-president; R. C. Coffey second vice-president; W. G. Moore, third vice-president; H. L. E. Johnson, fourth vice-president.

There was the usual crowd in the exhibit hall, and it was one of the agreeable things of this meeting that "alkaloidal headquarters" had an exhibit, and this was crowded with interested visitors from the very beginning to the very end of the sessions. Perhaps no other booth in the entire hall was so honored by friends or complimented by visiting physicians.

Of the St. Louis weather the least said the better. It rained nearly every day, and the pleasure of the many excursions and other social events arranged by our St. Louis hosts was seriously interfered with, yet there was enough to satisfy the heart of anyone—and of all kinds. In fact, the variety of entertainment was a little too diverse. The nautch dancer who entertained the members of the surgical section at their annual smoker was not even "clothed in blushes"—hence, much scandal, and much shifting of responsibility among the members of the entertainment committee. (Medico-political preferment is also sought in St. Louis.) Many members of the section gave loud vent to their indignation at this unpassed exhibit—yet, it is said, no one left the room, all doubtless remaining "in the interests of science."

Los Angeles, 1911! Buffalo was a close second, but the Golden West was the winner, as is usually the case. We shall be there and hope to have the pleasure of meeting many of our friends from the Pacific Coast at Los Angeles, next June.

Among the various other societies which met in St. Louis just before the American Medical Association we can not overlook the American Medical Editors Association. Dr. W. A. Young of Toronto presided. Much of the success of this meeting we owe to him. There were fine papers, live discussions and a good attendance of the brightest and best of our guild. The banquet on Monday night was a gem, being notable in two particulars: for the first time the ladies were present, and Dr. J. MacDonald, Jr., who has served the Association as secretary and treasurer for years, and was elevated to the presidency at this meeting, was given a silver service by his associates, in slight appreciation of his long years of disinterested and unremunerated service.

Altogether, we enjoyed the meeting, or rather the association of meetings, tremendously. Will you not join us next year?

ANOTHER MARTYR TO SCIENCE—DR. HOWARD T. RICKETTS

The latest addition to the long roll of medical men who have surrendered their lives in their devotion to science is the name of Dr. Howard T. Ricketts of Chicago, who died in the City of Mexico, May 3, last, while pursuing investigations concerning the causation of typhus fever. While Dr. Ricketts was only thirty-nine years of age

he had already made a reputation for himself in pathologic study. He was associate professor in this subject at Rush Medical College, had written a book on "Infection, Immunity and Serum Therapy," and had recently accepted the chair of pathology in the University of Pennsylvania.

He was an untiring worker, and when he went to Mexico to study the epidemic of typhus prevailing in our sister republic he was already worn out by overwork, and it is to this fact that his illness and death are probably due.

There is no other profession, we believe, whose members give themselves as willingly to the service of mankind as our own. In the ceaseless warfare with disease there are ever those among us ready to step into the breach, without thought of personal danger. Thank God that it is so. As *The Chicago Tribune* said editorially: "Dr. Ricketts died on the firing-line of human progress, and it is inspiring to believe, as we may, that he did not die in vain. Mankind is richer for his living and nobler for his dying."

We come to understand truth just in proportion as we are true to truth.—Golden Rule Jones.

ADVANCE OF THERAPEUTICS

In *The New York State Journal of Medicine* Dr. C. W. Dennis contributes a suggestive paper, discussing the question of whether therapeutics has kept pace with the advance of other branches of medical science. He says:

"Indeterminate conclusions are not new to the student of medicine. They meet him at every turn of his professional life in the realm of therapeutics. He has sought in vain for facts, some firm foundation on which to rear a structure which would stand the test of criticism."

The same author quotes Wood, from the preface of the first edition of his "Therapeutics," published in 1875, as follows:

"To establish therapeutic facts the profession clings with a desperation and unanimity whose intensity is the measure of unsatisfied desire for something fixed; yet with what a babel of discordant voices does it celebrate its two thousand years of experience. The history of men groping in the darkness, finding seeming gems of truth which were soon cast back into the vast heap of forgotten baubles which in their day had been mistaken for verities."

Dr. Dennis further says: "Modern therapeutics is divided into many branches, such as serum-, electro-, radio-, mechano-, hydro-, psycho-therapy, and last, and most important, what may properly be called drug-therapy." To this he directs his efforts: "as, I believe, it is today the most discredited of all the branches of medicine. There probably never was a time when medical men had so little faith in the positive effects of drugs when applied to the cure of disease, and this pessimism seems to increase with time."

While acknowledging the values in the newer therapeutic methods, he claims that there still remains a field for drug-therapy in relieving, sustaining and soothing as no other agent can. This field our predecessors cultivated most imperfectly. He strongly urges that the enormous mass of medicinal agents should be reduced in number. The Dispensatory of 1875 indexed nearly 15,000 articles, the last edition contains nearly 20,000. Wood's "Materia Medica" of 1900 indexes 2760; Ellingwood's, 1400. The therapeutics of the homeopathic school contains still more.

"Besides these the commercialists have placed before us thousands of medicines and compounds, until our materia medica is so chaotic that the student is appalled and the practician bewildered. Any man of experience could select one hundred remedies from this mass and cast the rest to the four winds, and his results would not be impaired. He also knows he can select five out of the hundred, and with these accomplish more good than could the man who selected the other 95."

Dennis asserts that if all the drugs outside of the hundred were destroyed we should accomplish more good than we do now, for the simple reason that we should know them better and become more familiar with their

qualities and powers. *Fewer* drugs and *single* remedies rather than combinations, with a distinct knowledge of dose and effect, is the only scientific method of prescribing.

"Polypharmacy is evidence of ignorance. If one does not hit, another may, is the supposition; and if by any chance a hit is made it is impossible to tell which was the lucky ingredient. The skilled marksman shoots with a single bullet, driving it straight as a ray of sunlight to its mark, a thousand yards away; the unskilled loads his gun with numerous small-shot, trusting to luck to hit something if it is close enough and large enough

"More than a hundred years ago Hahnemann established the homeopathic school, based on single remedies for single symptoms, and small and oft-repeated doses. Fifty years later Scudder, a most original thinker, followed Hahnemann in his theory of single remedies, and developed the eclectic school upon the theory of single specific remedies for single specific diseases."

Dr. Dennis is mistaken here, as most men are who look but casually at Scudder's work. Scudder developed the system of specific remedies for specific symptom-groups, insisting, as Hahnemann had done, on the study of the individual case and fitting the remedies to the symptoms developing. Neither method (we are not now quoting Dennis) corresponds with the work of the active-principle advocate, excepting insofar that all three urge the study of the individual patient; but with Hahnemann, that work consisted in matching the remedy to the surface indications, as where chamomilla might be given for a pain on the left side, bryonia for one on the right. Scudder would prescribe his remedy for the symptomatic conditions presenting, as, for instance, bryonia for sharp, cutting, lancinating pains such as resulting from serous inflammation.

With the active principles we go to work from a different standpoint. We look to the disorders of physiologic functions rather than to their manifestations by symptoms; as, for instance, when we find vasomotor alterations, with undue contraction of one portion of the vascular area, or undue dilatation of another, or both, we apply the appropriate remedies, irrespective of the name which we may employ to designate that particular affection

As a matter of course, in this careful study of the patient we soon learn to distinguish several underlying causative factors, which are present in many instances, and to appreciate the widespread influence of such an element as fecal autotoxemia, or of the nerve exhaustion due to the leakage of nerve-force from a constantly acting irritant. We learn to recognize in many different affections the element of connective-tissue relaxation or contraction, and to meet this factor of disease directly, irrespective of the special symptoms by which the affection may be manifested by the patient. Pain in the knee-joint does not, therefore, call for a specific remedy as with Hahnemann, but directs our attention to the disease in the corresponding hip, against which our therapeutics should be directed, if we had any.

The last clause is introduced advisedly. This is by no means a complete therapeutic method. We have gathered from many sources bits of important therapeutic knowledge, woven them into a system which applies as far as our knowledge extends, but no farther. There are many gaps. There are on every side stretches of unknown territory which await the explorer. But nobody who has not investigated the matter can fail to be surprised at the extent of the work already done, and the number of instances in which a precise knowledge of pathology and a correspondingly precise knowledge of drug-therapeutics may be united in practice, to the immediate and decided benefit of the patient.

Dr. Dennis' conclusions and propositions are as follows:

"1. Dropping out of the Pharmacopeia hundreds of medicines which are of doubtful utility, or which are with difficulty prepared with accuracy, or which duplicate each other in their range of action.

"2. The State should provide a laboratory in which would be made examinations

and tests of medicines to determine their strength and purity, and a law should be made prescribing a fine and punishment for offering for sale medicinal substances varying materially from a standard as defined in the United States Pharmacopeia. This, as I understand, is not covered by the 'pure-food and drugs act.' In addition, skilled men should be employed to determine physiologically, when possible, the positive effects of drugs most commonly used. As it is today, such assays are mostly made by drug houses, or by scientists who do the work for scientific ends.

"3. More careful observation should be made and recorded by medical men of the effects of medicines clinically; single remedies should be used more frequently; the ready-made prescription should be largely if not entirely dispensed with, as it cultivates habits of carelessness and indolence.

"4. Proprietary remedies should be entirely refused which do not carry the exact formula, and it would be better if they were never prescribed, as in doing so we simply use our prestige to advertise another man's business; we acquaint the public with remedies which they finally become so familiar with that they purchase them in the open market and use them indiscriminately, to the injury of our own business and many times to their detriment, and benefit only the manufacturers, who grow rich from our lack of business sense.

"5. Every doctor should familiarize himself, in a measure at least, with the drugs used by other schools of medicine. No one school possesses all the knowledge of the world.

"6. Careful study of each case, recognizing that nature is always making an effort to cure and not to kill—which is directly opposite to the view it seems the fathers held, judging by their therapy—will lead to the adoption of those measures which remove obstacles from her pathway and strengthen her power. If drugs cannot cure, they can aid nature to cure; if they cannot cure or aid in a cure, they can relieve, and thus accomplish all the prime objects of drug-therapy."

It will be seen that much of Dr. Dennis' reasoning is that which we have been urging upon our readers for these many years. This is necessarily the case, for nobody can really study the problems of drug-therapeutics, with an earnest desire to ascertain the truth rather than to establish a theory, without coming to the same conclusions. These may be summed up, by saying that what we want is exactness in the action of our drug-therapeutic agents, and exactness in our knowledge of their powers.

That scientific accuracy can only be secured from the use of agents of scientific precision goes without saying. Possibly at some time in the future the medical profession at large may open their eyes and their understandings, and realize this truth.

In science the man who discovered the telescope and first saw heaven was paid with a dungeon; the man who invented the microscope and first saw earth died of starvation.—John Ruskin.

THE UNREASONABLENESS OF POLYPHARMACY

At an epoch when there is never enough money to perfect the weapons of destruction, it is not *malapropos* to improve the means of conservation. Our ambition is to prevent and to fight disease, and certainly it is disinterested.

Pathology can not be separated from therapeutics, the one confirming the other, for the diagnosis is completed by the remedies. In a case of facial paralysis with neuralgia of the scalp, the seventh and the auriculotemporal branch of the fifth being affected, strychnine and hyoscyamine has been given internally, morphine and hyoscyamine subcutaneously, also quinine hydroferrocyanide, but without success. The cause being rheumatic, antimony arsenate was given and the relief was prompt.

A success and failure were registered in a case of spinal sclerosis, in the cephalic and lumbar bulbs. The patient was alcoholic and had amblyopia as well as paraplegia. Phosphoric acid and strychnine were given, the amblyopia gave way, but the paralysis

remained, probably because the sclerosis was worse in the lumbar bulb.

The homeopathist sees only the symptom, with no connection with the affected organ, the cause of the malady or the nature of the lesion. With him *post hoc* is *propter hoc*. Taken altogether, homeopathy is do-nothing, as with the "expectants."

Amidée Latour said: "Medicine has actually strayed from its natural path; it has lost from view its noble object, that of solacing or curing. Therapeutics has rested on this. Without therapeutics the physician is only a useless naturalist, passing his life in classifying and depicting the maladies of man. It is therapeutics that elevates and ennobles our art; by it alone this art may become a science."

Another author says: "Physicians, nosographs, anatomists, expectants, occupying themselves not at all in treating the disease, have come to study, each from different points of view, the phenomena of the human body, as they study geologic and astronomic phenomena, with curiosity and indifference. They are not physicians but naturalists." (Gallavardin.)

Expectancy was largely a result of polypharmacy.

Bichat said: "Materia medica is perhaps of all the physiologic sciences that which best depicts the caprices of the human mind. What do I say? It is not a science, it is an unformed collection of inexact ideas, observations often puerile, formulas as bizarrely conceived as laboriously assembled."

Forget said: "In associating a crowd of substances the practician hopes that one among them at least may fulfil the need, like the discharge of a mitrailleuse, of which some balls may chance to hit an enemy. But what if they hit the patient?"

It is no wonder many physicians refuse to prescribe. Hufeland stated that he had long since become convinced that of all patients who recovered, the largest number did so without the aid of medicine, a very small number through that aid. This is the negation of the art." However great our confidence in the medicatric force of nature, we dare not abandon to her one who has a pernicious fever or any diathesis whatsoever. Besides, in furnishing us antimiasmatics and antidyscrasics, does not nature indicate the uses she expects us to make of them? Skepticism is not in the nature of man.

St. Augustine said: "*Credo quia absurdum.*" Belief is a necessity; to know why is the work of superior spirits. Philosophic doubt is legitimate; and the wise say, When in doubt, refrain. To deny a fact one must demonstrate its falsity; but who dares say that medicaments have no value? Who dares say quinine does not cure intermittents, or mercury syphilis? Who can say that Art and Science have nothing in reserve? Consult the history of therapeutics and you will find that every time a new remedy has been introduced it has met a lively opposition. Empiricism and tradition fight against all progress.

Bichat conceived the idea of reforming the materia medica by studying the action of drugs, not upon diseases but upon the tissues. Unhappily the premature death of the creator of general anatomy did not permit him to accomplish this work. More fortunate, Claude Bernard came at the opportune moment, when chemistry had put the alkaloids at his disposal.

Every good and commanding movement in the annals of the world is the triumph of enthusiasm. Nothing great was ever accomplished without it.

—Ralph Waldo Emerson.

DIRECT MEDICATION

The poet asks, "What's in a name?" and then says, "A rose by any other name would smell as sweet." Possibly so, but, nevertheless, there is more in the name of a rose than the suggested odor. Change the initial letter of the word to d. n. or h, proffer it to your lady-love, and see if she will receive it smilingly, as under the present designation!

Shakespeare himself testified to the exceeding value of a good name: "Who steals my purse steals trash," etc.

Every manufacturer knows the value of a catchy title to designate his products. The alliterative term, malted milk, must have been a fortune to the witty deviser. Under that title the product has enjoyed a popularity which never would have accrued to "Horlick's food," for instance.

Leaving the commercial aspect of the matter aside, the name of anything should signify its characteristics as far as possible. In this respect the present therapeutic renaissance has been singularly unfortunate, in that neither department in which its activity has been manifested has received anything like a correct designation. To the various non-drug methods considered collectively the designation of physiologic therapeutics has been given, most inappropriately, since they are not physiologic and many of them but doubtfully therapeutic.

The other department has been still more unfortunate. In Europe the movement received the name of "dosimetry." Dosimetry means "measured (metric) doses," and refers only to the pharmacology, to the fact that of the medicaments used exactly measured doses of exact medicaments are employed. In America the term "alkalometry" has been employed to some extent, but this is no less objectionable, because the movement is not restricted to the use of alkaloids. "Active-principle therapeutics" has been substituted. This also is objectionable, because the method does not consist in the use of active principles.

Much better would be the designation of "direct therapeutics," for the drug-method, of treating disease and "indirect therapeutics" for the other.

Direct therapeutics consists in the application of medicinal certainties, accurate, chemically pure remedial agents, either alkaloids or other active principles, or pure chemicals. These, being each uniform with itself and exerting invariably the same action when administered under the same circumstances, can be applied to the direct treatment of conditions presented by the patient. If we have remedies which relax vascular tension, we can apply these remedies whenever vascular tension ought to be relaxed to restore physiologic equilibrium. If any of the vital functions is below par, or above par, we apply the exact remedy that restores balance, hence the term "direct medication" is exactly descriptive of the method.

The term "indirect" for the non-drug methods is equally appropriate, as for instance in the treatment of constipation depending upon atony of the large bowel. Here the direct medication would consist of a remedy to increase the tonicity of the bowel, e. g., aloin, cascarin, strychnine, etc. The indirect method would be the inculcation of exercise, of abdominal massage, cold abdominal douches, regulation of diet, etc.; which, however judicious they may be, are nevertheless indirect and tedious methods. There is in this no reflection whatever upon the non-drug method, nor any expression of preference for drugs. This is a matter altogether foreign to the question at issue, which is as to the correct designation of these two methods of therapeutics.

Many examples will occur to the reader of the appositeness of this distinction. Let us lay aside the titles, dosimetry, alkalometry, alkaloidal therapeutics, active-principle medication, and hereafter speak of the methods which we advocate and practice as direct therapeutics.

The title of "specific therapeutics" is equally as objectionable as the others enumerated. As employed by physicians generally this term has one of two meanings, one being the use of a specific directed at a disease, as quinine for malaria, mercury for syphilis, sulphides for gonorrhea, or antitoxin for diphtheria. The fact that it is scarcely possible to find a specific beyond those mentioned would suffice to show that "specific medication" is a term not applicable to the vast majority of cases coming under our supervision.

In another sense "specific medication" is employed to designate the use of the "specific medicines" prepared by a single drug firm. Obviously this is impossible to apply to a system which ignores any special manufacturer and is established on the broad basis of absolute openness, devoid of secrecy and monopoly.

The term "symptomatic medication" is not descriptive, because we do not aim our treatment at a symptom or a group of symptoms, but at the pathologic conditions underlying them.

"Etiologic medication" is also not descriptive, for although the treatment is aimed at the underlying cause of the disease whenever the removal of the cause cures the disease, this is not always the case. Quite frequently we have to deal with the results of disease remaining after the cause has ceased to be operative, as in Asiatic cholera. While the comma bacillus, by its operations in the alimentary canal, may occasion the attack, yet the symptoms of the third stage, that of cholera typhoid, are distinctively the results of the bacillar invasion, and the indication here is not to kill the bacilli, but to repair the damage which they have induced during the earlier stages.

Altogether it seems as if no other designation as yet suggested so accurately and completely expresses the object which is held in view by the advocates of modern drug-therapeusis. The adoption of the term advocated, namely, direct therapeutics, would, therefore, serve to dissipate a good many erroneous views, by which many worthy practicians are withheld from participation in this work. The very first objection urged against our system by the man to whom it is known as "alkaloidal therapy" and who has simply formed general views without much examination is that its advocates are urging a system based upon the exclusive use of the alkaloids, and it seems that no amount of repetition or emphasis of denial serves to dissipate this silly conception of what we are advocating.

When we have conquered ourselves there are no more victories to be won.—Golden Rule Jones.

UNITING COLLEGE FORCES

The tendency of the times is toward the concentration of energies, the combination of interests and forces to form large bulk and secure the power that comes therefrom. In St Louis and Louisville several of the medical colleges have combined, and a similar movement has been inaugurated in Chicago.

Bennett Medical College, of the latter city, has absorbed the Illinois Medical College, and the same interests have acquired the Reliance. Rumor has it that several other schools contemplate joining this combination. It is understood that the faculties of the school are likewise combined, so that the institutions now present a faculty of over one hundred, and classes numbering nearly five hundred. The combined equipment is ample in every department. With the acquisition of the Illinois, Bennett assumes her affiliation with Loyola University (Jesuit).

This solves all difficulties as to preliminary education, the University affording full opportunity for such training and degrees as may be required by any of the states. By express stipulation all theologic matters are excluded from the medical school, and every student's religious views are respected. Jew or Gentile, Christian or Mahometan, Protestant or Catholic, no distinction is made and no proselyting is permitted.

Ground has been broken for Bennett's new building which will be completed before the fall semester begins. This will accommodate two classes of 120 each, with lecture rooms and laboratories; besides dissecting rooms, gymnasium, recreation rooms, and so forth. The building and equipment will be fully up to date in all respects. The old Illinois College building will be retained for the present as the clinical department.

Dr. John Dill Robertson remains the President of Bennett. Dr. W. F. Waugh is Dean, while Dr. J. F. Burkholder continues as Dean of the Reliance, which is an evening school, and Junior Dean of Bennett.

The course at Bennett comprises three semesters annually, any two of which constitute a full years' term. Many students who have to earn the funds for their own education find it convenient to take the first and second years at the night-school, finishing in the day school. Many of the students in both work their own way through the college course, and these are not by any means an undesirable class of students.

We desire to call especial attention to Father Spalding's letter in another department. The popular idea of the Jesuit is apt to be taken from the lurid romances of the Sue class instead of from real life; and it is a pleasure to clarify this by calling attention to the great work of this society as an educational factor.

The tree that's shook the oftenest usually has borne the best fruit.

DIGITALIN AND ITS SUBSTITUTES

The failure of the supply of digitalis brings into immediate importance the question of possible substitutes for this most essential of remedies. This is not a simple matter to be decided by applying whichever of the socalled cardiac tonics that happens to be in stock. We must consider what we are doing with digitalis, and what effects we are getting from it.

Nobody who has put cactin to the clinical test thinks of it as a substitute for digitalin. The field of activity is entirely different, and cases requiring the one are not those that would be benefited by the other. Cactin regulates irregular cardiac action, relaxes vascular tension, and soothes irritability, especially nervous erethism.

The favorite digitalis preparation here is the Germanic amorphous digitalin, really digitalein with a little contained digitonin. The action is primarily a slight vascular relaxation, quickly followed by heart toning, beginning within one-half an hour and enduring two to four hours. But little vascular contraction attends at first, but this is perceptible later.

The French employ the true crystallized digitalin, not soluble in water, acting slowly (Fraenkel says only after thirty hours), exerting a powerful heart-tonic power and a corresponding decided vascular contraction. Its effects are prolonged for days; hence Huchard's dictum that digitalin should be given once in six weeks!

It is obvious that these are two distinct remedial agents, and not to be employed interchangeably; and that the crystaline digitalin is not the legitimate substitute for the amorphous form.

Adonidin has recently been strongly advocated by Heinrich Stern, and he presents reasons for preferring this glucoside over the other remedies of the cardiant group. But its high price and scanty supply are objections. Still, it is available to anybody who desires to test its merits.

Convallamarin acts like crystalline digitalin in toning the heart and raising vascular tension, and it also deepens respiration. It acts as a diuretic if the vascular tension is below par. All these actions are reversed by toxic doses, and the action then closely resembles that of aconitine. For this reason it is scarcely a drug to be employed experimentally by the average physician to whom it is unfamiliar, whose dosage is experimental, and who may be unaccustomed to close observation of drug action.

Strophanthin has recently been strongly urged, especially since a new and excellent quality of the principle has been placed on the market. The specimens in the drug shops are still of variable quality, too much so for everyday prescribing, and the results of its use are correspondingly variable—and we can not afford variability in our digitalin or its substitutes. Strophanthin acts as digitalein in that it has little constrictive effect on the blood-vessels, being mainly a cardiant tonic. It is credited with an action specifically on the aortic valve, as digitalin has on the mitral; but this we look on as a groundless refinement and misleading.

We come to what we look upon as the best of the digitalin substitutes, namely, sparteine sulphate. This alkaloid has so little vascular constrictive action that some term it a vascular relaxant. It adds to the vigor of the cardiac contractions, acting well when continued long, without any cumulative or other "come-backs." It is diuretic solely by increasing the heart-force. It acts quickly, and may work well with the two defervescents, aconitine and veratrine. The dose is 1-6 to 1-2 grain, to be repeated every half to two hours, like amorphous (Germanic) digitalin. Pettey gives sparteine in single doses of 2 grains, but this is in cases

possibly overdosed with digitoxin, where the vascular relaxation is useful. Sparteine is supplied in excellent quality and in abundance by the best manufacturing houses. It seems the safest, most effective, and of the possible substitutes most closely resembles the digitalin we have been using.

The finger of scorn needs the services of a manicure.
—Elbert Hubbard.

CAN PNEUMONIA BE ABORTED?

From a paper by Dr. John H. Landis, appearing in *The Lancet-Clinic* for April 16, we copy the following report of a case of pneumonia successfully treated:

"Mrs. L., aged eighty-four years, in her usual health, was seized with a rigor at five o'clock in the afternoon. Coincident with this there was a sharp pain in the right side near the nipple, cutting short each inspiratory act. There was frequent painful, dry cough. When seen at 7 p. m. her pulse was 132, and very irregular; temperature, 102.3° F.; respirations, 40. There was a small area over the right lower lobe where fine dry râles could be heard at the end of an inspiration; there was no friction sound present. There was marked mental excitement, but no delirium, while movements of the body and extremities were almost continuous. The picture was that of lobar pneumonia.

"Ten drops of Norwood's tincture of veratrum viride was given as an initial dose and 2 drops ordered given every half hour during the night, if awake. In the morning the pulse had dropped to 80 and was regular and compressible; the respirations had decreased in frequency and were less painful; the cough was in every way improved; the temperature was 99°F.; the restlessness and mental disquiet had subsided and she had slept several hours. The veratrum was continued for about ten days, the dose being regulated so that the pulse was kept as nearly as possible at 70. Convalescence was fully established in about two weeks and the patient is now in her usual health.

"To those who will question the diagnosis it may be pertinent to say: If it was not pneumonia, what was it, and what other drug in the Pharmacopeia is capable of accomplishing the results obtained, regardless of the accuracy of the diagnosis?"

In spite of our personal predilection for veratrine over the tincture, we have no quarrel with Dr. Landis about his use of the latter. The doctor is accustomed to the veratrum viride and gets results from it. Some day he may decide to use veratrine, and find that he gets from it even more decided and prompt results.

The point which we desire to make in this connection is simply a repetition of Dr. Landis' question, "*If it was not pneumonia, what was it?*" and what other drug could have accomplished the results obtained, could have changed the distressing clinical picture so promptly and so lastingly?

We certainly consider this case a splendid vindication of our position that pneumonia can be, and is, aborted, and that the right drugs used at the right time and in the right dose work, and they work right.

MEDICAL JOURNALS IN THE PHYSICIAN'S WAITING ROOM

The appearance of practically every number of CLINICAL MEDICINE is followed by the receipt of requests from laymen either for copies of the journal or for a supply of remedies mentioned in one or the other of the original articles or communications. It goes without saying that our replies to these requests are invariably the same: "CLINICAL MEDICINE is published for physicians and not for the laity. If you get your doctor to write us we shall be glad to communicate with him."

That is as far as we can go. But does not the fact that this and, we have no doubt, other medical journals as well fall into hands for which they are not intended show the existence of a leak somewhere? We ourselves have seen in many physicans' waiting rooms the table, mantel, bookcases stacked high with medical journals, also with physicans' samples and literature pertaining thereto. What more natural than that the people, who read such journals and see such articles while waiting their turn to see the doctor, should

come to think that they may as well save the medical fee by applying to the druggist direct.

Some journals, and especially the literature accompanying physicians' samples, tell their story in such glowing colors and describe the conditions in such apparent simplicity that the people are very apt to think they can treat themselves. It is all right to have literature in your waiting room, in fact there should be, but let it be popular, not medical; let it be new and clean; let it lead the patient's mind from his troubles rather than toward them.

Adhesiveness is a great element of success. Genius has glue on his feet, and will take hold of a marble slab.
—S. J. Wilson.

PRECAUTIONS IN THE USE OF THE ALKALOID

The Editor of *The Critic & Guide* (April, 1910) writes about prescribing alkaloids as follows:

"Great care is necessary in prescribing these [the alkaloids], because most of them being potent drugs precipitation may cause serious consequences by an overdose of the alkaloid being poured out in one dose. Whenever feasible, alkaloids should be prescribed by themselves, either in solution or, better still, in the form of granules, pills, etc.

"Alkaloids should not be prescribed with potassium hydrate, carbonate and bicarbonate; sodium hydrate, carbonate, bicarbonate and borate (also phosphate); ammonia water and ammonium carbonate; limewater; iodides, bromides; tannic acid (or substances containing tannin); mercuric chloride, gold chloride. Besides the foregoing, quinine is also incompatible with salicylates and acetates.

"The reason the alkaloids are incompatible with the above enumerated substances is because the former are precipitated by them. For instance, if we prescribe morphine sulphate and ammonia water or ammonium carbonate (or the aromatic spirit of ammonia, which contains those substances), pure alkalodial morphine, which is but very slightly soluble, will precipitate; if we prescribe morphine sulphate and tannic acid, morphine tannate will precipitate; if we prescribe strychnine sulphate and mercuric chloride, a double salt of strychnine and mercury will precipitate, and so on."

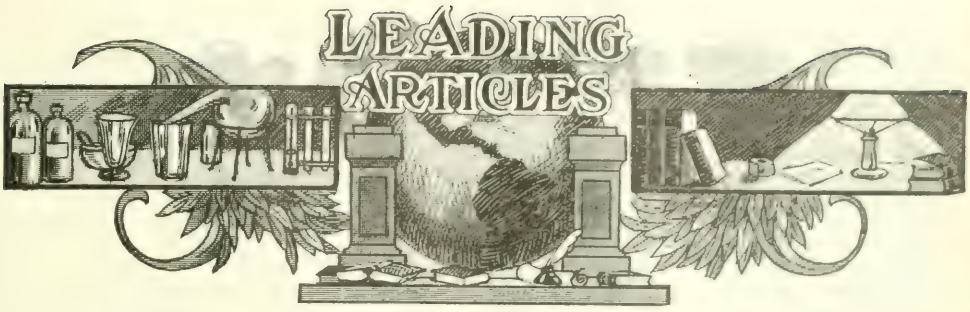
The precautions given in this paragraph are worthy to be carefully remembered by all physicians who depend upon alkaloids in the treatment of their patients. While their use simplifies the practice of medicine in many ways, it can not be said to be exactly easy. In fact, much care and study is necessary in order to become fully acquainted with the different active principles, their indications, actions, and their relations to other remedies.

The practice of positive therapeutics requires exact diagnosis and exact prescribing. These conditions being fulfilled, results confidently may be looked for.

THE HAY-FEVER SEASON

In a timely article, which appears on page 748 of this number of CLINICAL MEDICINE, Dr. Shastid has presented in a beautiful way some fundamental facts and suggestions bearing upon the treatment of hay-fever, which many of us will be called upon to treat before the month is out. One addition to Dr. Shastid's article we wish to make, and that is to emphasize the importance of searching for acidemic conditions and correcting them if they are found present. Make a systematic examination of the urine of the hay-fever patient, beginning before the annual attack presents itself. In the majority of cases we believe you will find it highly acid, and often loaded with indican. The indicanuria calls for the administration of intestinal antiseptics, as Dr. Shastid so clearly shows. The acid intoxication also demands treatment and decided benefit usually follows the administration of suitable remedies of an alkaline character.

Elimination, the correction of intestinal autotoxemic states, the neutralization of acid excesses, proper attention to the local condition, with sedative or alterative medication, as indicated, are the indications to be kept in mind when treating cases of hay-fever. In succeeding issues we hope that readers of CLINICAL MEDICINE will report their successes or failures through these pages.



The Alkaloids of the Atropine Group

An Exhaustive Pharmacodynamic Study of the Alkaloid Atropine Is here Presented. Showing Its Many-sided Applications in Pathologic Conditions

By E. ROBERT TISSOT, M. D., Chaux-de-Fonds, Switzerland

ATROPINE is the active principle of belladonna (atropa belladonna, L., deadly nightshade) of the family of the solaneæ. Belladonna is a herb-like plant and attains a height of six feet. It possesses a large rhizome, which persists, is at first fleshy and then becomes woody. The blossoms, of a dirty yellow-violet, have the divisions of calyx and corolla arranged alternately. The fruit, which is black when ripe, resembles in appearance a cherry and contains a large number of small ovoid seeds of a light-yellow-brown color.

The name of the plant is derived from the Greek Atropos (*a*-privative, *trepo*, to turn away from, to deviate), the name of one of the three Fates, the goddesses who spin and unhesitatingly cut the thread of human life. The word belladonna (beautiful woman) first appears in the sixteenth century and is derived from the fact that with the juice of the fruit of this plant a face-paint was prepared which was applied below the eyes in order to make the pupils appear larger.

The peculiar alkaloid contained in every part of the plant was discovered by Mein and was first obtained in a pure state by Geiger and Hesse. This alkaloid is composed of a basic element, atropine ($C_8H_{15}N_3O$), and of a peculiar acid, namely, tropic acid ($C_9H_{10}O_3$). The leaves contain from 0.3 to 0.6 percent of atropine. The roots contain very variable proportions, from 0.15 to 0.55 percent. The proportion of atropine in the entire plant varies considerably according to the meteorologic conditions of the year, the soil, and other local influences. The plant and its galenic preparations should therefore be rejected in medical practice and only the atropine be employed, that is, the definite agent which is always identical with itself. In the galenic preparations, the tinctures and extracts, the atropine-content varies all the way from 15 to 55 percent.

The dose of the active principle, atropine, must be extremely minute, since a difference of only 1-128 of a grain (1-4 of a milligram) may suffice either to fall short of the desired therapeutic effect or to be excessive. In the first instance we do no good, while in the other we inflict harm.

Dosimetric practice alone permits us to strike, without danger, the proper dose, because only by this method do we proceed cautiously, testing the susceptibility and individual toleration by means of granules which are quickly absorbed because very soluble, which represent sufficiently strong doses to be active, but yet weak enough not to cause toxic symptoms. Owing to the feeling of uncertainty which the galenic preparations engender in the minds of the

physicians, they are strongly tempted to be content with doses below the effective amount in order to avoid harm. This practice, however, is to be condemned as a form of therapeutic inaction under the guise of action, for it is sheer hypocrisy, unpardonable pharisaism, because atropine is a most wonderful agent, capable of saving life, capable of dispelling pain in the most trying situations in which a physician may be called upon to act.

Physiologic Action of Therapeutic Doses of Atropine

Therapeutic doses of atropine diminish or suppress most of the secretions (sweat, saliva, gastric juice, intestinal secretion, mucus, bronchial, urethral) by paralyzing the peripheral secretory nerves. On the other hand, such doses augment secretion of the urine by increasing the arterial pressure through stimulating the smooth muscular fibers of the median coat of the arteries. The same doses allay pain because they relieve spasm and because of their direct narcotic action upon the cells of the cerebral cortex. They produce mydriasis by paralyzing the pupillary sphincter.

In view of all these properties, we say that atropine is a narcotic, antispasmodic, antihydrotic, and mydriatic. These pharmacodynamic properties are very pronounced, and they find their therapeutic application, principally, in the following conditions:

Narcotic Action: Psychoses, delirium tremens, seasickness, nocturnal enuresis, spasmodic and bronchial cough, whooping-cough.

Antispasmodic Action: In gastralgia, spasm of the pylorus, constipation, strangulated hernia, ileus.

Antihidrotic Action: The profuse sweat of the tuberculous, hypersecretion of the stomach, serous diarrhea in children, catarrh of the mucosa of the respiratory apparatus, blennorrhagia with vesical irritation and painful tenesmus.

Mydriatic Action: By dilating the pupils it removes the blood and the exudate in the pathologic iris. In an unscientific way, yet expressive and perfectly true, we say, the atropine squeezes the sponge which is gorged with blood. It is in this manner that it overcomes the inflammation of the vascular portion of the eye.

Other Applications of Atropine

Let us now consider some other applications of this highly important alkaloid.

In the treatment of vomiting, of spasm of the pylorus, of the intestines, in asthma, atropine quiets the pain and cuts short the spasms. Hence, also, its utility in *nervous constipation* and, strange to say, in *atonic constipation*. But here the effect is the opposite: atropine first reduces the existing spasm, but since now there is no spasm present, it provokes physiological contractions, causing the atonic condition to disappear.

In *gastralgia*, with or without hyperchlorhydria, atropine quiets the pain and diminishes the secretion, the action affecting especially the free hydrochloric acid. This diminished gastric acidity adds to the direct sedative action of the drug and thus relieves the patient. The stomach contains less fluid on account of the antihydrotic action, the work of emptying the stomach is reduced, and contraction of the stomach-walls is therefore facilitated. This influence upon the stomach is exerted quite quickly, nevertheless it endures for a long time. The best dose to obtain this result is 1-128 of a grain two to three times a day and continued for two weeks. Simultaneously with atropine, it is well to give sodium bicarbonate in teaspoonful doses three or four times a day. The atropine is given before meals, the sodium bicarbonate after meals, at the time when the appearance of pain shows that the acid is generated in excess.

In cases of *ulcer of the stomach* Von Tabora of Strasburg recommends larger doses of atropine, say, 1-64 of a grain mornings and evenings, by hypodermic injection. The pain disappears very rapidly, the gastric juice secreted diminishes, the hydrochloric acid becomes less. In such cases Von Tabora has given as much as three times 1-64 of a grain of atropine in twenty-four

hours. Such large doses, however, expose the patient to the danger of poisoning. So he must be watched most carefully, the remedy being stopped just as soon as dryness of the pharynx and the buccal cavity appears.

Spasm of the esophagus disappears under the administration of atropine (also of hyoscyamine) combined with strychnine or its synergists. It is advisable to employ a combination of antispasmodics, or the antispasmodic and pain granules of Tuchler, consisting of these various alkaloids in the desired proportions. The dose of the latter is one granule every half hour until the desired effect is attained.

In *pyloric stenosis* the atropine diminishes the acid of the gastric juice. It is therefore decidedly useful. Against vomiting, from whatever cause, employ the antispasmodic granules in the doses indicated. *Lead colic* is favorably influenced by the same granules.

In *peritonitis* and *appendicitis* the antispasmodic and pain granules are also utilized in large doses.

The same is true for *hemoptysis*. After an injection of morphine, 1-6 to 1-3 of a grain, which quiets both the cough and the patient, the antispasmodic and pain granules are given every half hour, so as to maintain the calm until the ulcerated vessel is well closed by a thrombus.

In *constipation* aloin, cascarin, podophyllin, strychnine, and capsicin are properly added to atropine. This mixture is conveniently dispensed in the form of granules. The effect of these granules is very certain and quite innocuous, by virtue of a biologic law according to which a mixture of remedies having a parallel synergetic action act best in an optimum dose than the optimum dose of each single one of these remedies separately.

Atropine is advantageously employed against the *sweats of consumptives* if they are weakening to the patient, but they should not be interfered with when they are a defensive reaction of the organism, so that the latter may relieve itself, through the skin, of the toxic principles with which it is burdened. The commencing dose is 1-640 of a grain, increased rapidly to 1-200 of a grain, to be given fifteen minutes before the probable outbreak of the sweat. The remedy is administered for four or five days in succession.

For the *perspiration of neurasthenics* atropine is appropriately associated with ergotin and quinine, as, for instance, in this manner: Atropine valerianate, 1-250 grain; ergotin, 1 grain; quinine valerianate, 1-6 grain; one granule of each remedy to be taken every half hour until effect.

In the cough of quinsy, of *whooping-cough*, and of asthma small doses of atropine (gr. 1-640 to gr. 1-200) are added to quieting and expectorant granules, that is, to the compound granules for bronchial catarrh (apomorphine, tartar emetic, morphine sulphate, aloin); and also the other granules, namely those containing iodoform, codeine, and emetine.

In *cardiovascular diseases* atropine is employed for diagnostic purposes. In Stokes-Adams' disease the subcutaneous injection of 1-128 to 1-64 of a grain of atropine sulphate produces no increase in the number of cardiac contractions. In bradycardia of nervous origin, on the contrary, or in intoxications, the contractions of the heart become more rapid after the injection. Here atropine must be employed only with the greatest precaution, since these patients tolerate this drug very poorly.

The Use of Atropine in Ophthalmology

In cataracts the instillation of atropine permits the penetration into the eye of larger volumes of light. After the operation for cataract atropine prevents the formation of cicatricial adhesions by keeping the iris contracted. In phlyctenular keratitis and in interstitial keratitis atropine is useful when the iris is affected.

Atropine facilitates ophthalmoscopic examinations, but we must make sure beforehand that the intraocular pressure is not increased, in order to avoid an attack of glaucoma. Atropine does, in fact, increase the intraocular tension. For this reason, moreover, we must not employ atropine when the eyeball is perforated or when a

perforation is threatened, as, for instance, of a corneal ulceration. It is important to bear this in mind.

The Maximal Doses of Atropine

	SINGLE DOSES	DAILY DOSES
Adults	1/64 grain	1/20 grain
17 years	1/100 "	1/30 "
13 "	1/128 "	1/40 "
9 "	1/210 "	1/64 "
7 "	1/320 "	1/100 "
4 "	1/640 "	1/210 "
2 "	1/1200 "	1/600 "

These figures are a guide and *a warning* for the therapeutist. According to the precept of Hippocrates the physician must be cautious as a serpent and vigilant as a cock. This consideration has suggested to dosimetrists the idea never to employ atropine alone, but to associate the same always, wherever it is possible, with strychnine, which latter prevents toxic results while at the same time it is a synergetic remedy of the drug in the sense that it substitutes for the pain and for pathological and harmful spasms a nervous and muscular activity both physiologic and useful.

In our next paper we shall consider (1) the secondary, untoward action of atropine; (2) poisoning from belladonna; (3) the synergetics and succedania of atropine.

Curettage of the Uterus*

The Indications for the Operation, and Its Technic

By FRANCIS FOERSTER, M. D., New York City
Gynecologist to the German Hospital

IT needs almost an apology to bring before you a theme which apparently belongs to the most elementary ones in our art, and yet, I think, a discussion of the subject in this circle of general practicians may be of some interest.

The family physician, by force of circumstances, is the one who is called upon most frequently to perform the operation of curettage of the uterus, and there is no reason why he should not be able to carry the same out with credit, so long as he uses proper circumspection and masters the principles of asepsis.

The uterus and its extensive lymphatic system is an organ to respond quickly when poor judgment and negligent operative measures are employed in its treatment, but unfortunately such cases still furnish a great contingent in our hospital wards. Naturally the operator is blamed, but the accusation ought to be moderated, when we consider that this operation, by reason of its technical simplicity, has hardly been given the attention in our teachings which it deserves.

Textbooks on operative gynecology treat curettage of the uterus almost invariably in an offhand way, their authors confining themselves to a short description of the operation and the necessary instruments. Little is said about the indications, still less of the dangers which the operator may encounter during the operation, or the ill-effects which may follow when proper judgment was lacking. In short, a tone pervades the chapter which leads the student to believe that the subject is a trivial one.

How firmly this erroneous opinion has taken hold of the profession can best be seen from the way in which young hospital assistants handle these cases: they show plainly that they have not been properly impressed by their former teachings with the importance of the subject. It has even come to this, that they do not appreciate it at all when a curettage is entrusted to them. This apparently simple operation is liable to be turned over with scorn to the youngest house physician as a thing below the dignity of the senior, who himself may have but a few months' more experience. Writers

*Read before the Medical Society of Astoria, Oct. 22, 1908.

should give this chapter the deserved attention.

The Instruments Which Are to Be Employed

As to instruments: sharply pointed instruments must be avoided. The uterine sound, if used at all, should have a good-sized knob. We get very little information by the sound which cannot be obtained by bimanual examination.

The uterine applicator, which some operators use to remove uterine secretions, especially those of the metal-screw variety, I have seen do harm, as the point, becoming uncovered of cotton, is liable to bore into and through uterine tissue.

The dilator, as in common use, is a dangerous instrument, those with a screw-lock even more so than those where manual force is used. The shanks ought to be parallel; if they diverge at the point, the instrument is liable to tear the uterine tissue opposite the os internum, the rent may extend into the free abdominal cavity, but usually runs into the broad ligament.

Dressing forceps used in the endeavor to remove debris are risky, when pointed. Severe injuries, such as piercing the uterus and bringing down through the rent a loop of intestine, have been reported.

The uterine irrigator as usually constructed is another source of danger. The point should be blunt, the size of the selected catheter should be as large as possible, corresponding to the size of the uterus.

The irrigating fluid ought to be sterile water, avoiding antiseptic solutions as a safeguard against accidents.

Use the Sharp Curet Only

As to curets, we should recognize only the sharp curet as proper. To do any efficient work with the blunt curet, especially those of smaller sizes, means the employment of too much force: the very word "blunt" is liable to invite carelessness. Of sharp curets we ought to use the larger size in preference, the smaller sizes being only useful after the cavum uteri has been thoroughly explored by the larger instrument, for cleaning out the cornua. After curettage a strip of sterile gauze ought to be brought into the uterus for purposes of drainage, and acting at the same time as foreign body to invite strong uterine contractions. Thus small fragments of mucous membrane, partly loosened by the scraping, are compressed and come away with the removal of the gauze. We leave this drainage in the uterus for two days; on withdrawal we find no discharge, while in cases where drainage was omitted we usually notice a lengthy secretion of a fetid character to follow.

Nothing is gained by the substitution of iodoform gauze for plain gauze, while iodoform resorption may occur. The use of carbolic acid as a uterine swab I consider harmful; there is no sense in producing a slough on the raw uterine surface, and the few islets of mucous membrane which are absolutely necessary for the formation of the new lining of the uterus are liable to be destroyed. Atresia uteri may follow such a procedure as readily as when a curettage has been done too forcibly.

The Principal Indications for Curettage

As to indications for curettage, intentional abortion, incomplete abortion and endometritis rank first.

The family physician, and more often the specialist, may be called upon to decide whether a pregnancy should be interrupted in the interest of the mother. In solving this question, the conscience of the physician has to play a great part; the reason for his action need not necessarily be enumerated in our textbooks among the gravest diseases: humanity forms the keynote of his decision. Prudence dictates a sharing of the responsibility with a brother physician.

For obvious reasons I will not speak of criminal abortion.

Under incomplete abortion I understand any abortion which has not been properly carried to termination by curettage of the uterus.

Abortion, in my opinion, is in the great majority of cases due to a diseased endometrium upon which the products of gestation had become implanted. I expressed this view years ago, and proposed that a curet-

tage ought to be done, whether this abortion be due to a mechanical, medical or constitutional disturbance, and especially when it came on without any apparent cause. In this latter variety we find on questioning, generally, that other abortions had preceded, which had not been properly attended to.

A healthy endometrium will not give off the implanted ovum: sheer force is necessary to frustrate nature's efforts; only rarely is medication effective and then only after having reached systemic intoxication. Constitutional ailments produce diseased ova as well as an unhealthy nidus. By leaving an abortion to nature to empty the uterus or by assisting nature in a half-hearty way by removing the secundines with the fingers or blunt instruments, we invariably invite trouble. The ramifications of the chorion or the attachments of the placenta, being firmly imbedded in the endometrium, will not come away *in toto;* a slow disintegration takes place, the latter setting up a low grade of inflammation of the mucous lining; the menstrual flow usually becomes more profuse. If a tardy conception occurs, it generally results in an early abortion.

Curet All Cases of Abortion

My advice to curet all cases of abortion has been accepted reluctantly by the profession, but was almost generally carried out for fifteen years; only lately opposition is coming up again, claiming that the indifferent treatment of leaving abortion to nature's efforts and digital manipulations would serve all purposes. All I can say is that I adhere to my views: a curettage properly done cannot possibly do any harm and deals with the situation logically. An omission of a curettage under such circumstances I look upon as an error of judgment which is bound to show evil consequences sooner or later.

To perform a curettage properly, all precautions must be taken for an aseptic operation. An anesthetic is absolutely necessary for the patient's safety as well as for the operator's comfort. A curettage done on the spur of the moment without anesthesia and probably with doubtful instruments is worse than doing nothing. Here belong those cases which even now in these enlightened times we meet so often, of grave sepsis, where the physician, according to his own statement, had curetted the uterus several days in succession (and probably) without any preparations, to the great detriment of the patient.

Value of the Operation in Endometritis

Endometritis, we all know, is due to an invasion of the uterus by some pathogenic germ of more or less virulence. Such an occurrence produces manifest symptoms, such as discharges in which the offending microorganisms may be found, swelling and sensitiveness of the organ, fever, etc.

Acute endometritis should not be an indication for curettage, as much more can be gained by judicious local treatment.

Chronic endometritis, on the other hand, where the endometrium has undergone changes of a hypertrophic character, is usually best treated by curettage, after a careful examination of the adnexa has established the fact that the latter are not involved. It is a rare occurrence, though, that an infection has stopped short at the uterus; almost invariably we find that in cases of gonorrheal and also bacterium-coli infections the germs have invaded the tubes and secondarily the broad ligaments and ovaries. In such cases we find on examination that the right side presents evidence of active inflammation to a greater degree than the left side. This observation is so general that it has become valuable from a diagnostical point of view. Gonorrheal infection invades the organs uniformly, attacking mucous membranes, underlying muscular tissue and pertioneal covering seriatim, resulting rapidly in a pyosalpinx surrounded by nature's barriers, the lymph deposit, in shape of an exudate.

While, as a rule, both sides are involved, we find the left side, although containing pus in the tube, comparatively free from adhesions. That the right side, apparently, is the seat of trouble may be due to the close vicinity of the cecum and appendix. It is a

fact that, in the majority of such operations, we find the latter drawn into the area of inflammation to such an extent that it becomes difficult to say whether the trouble did not start from that organ. The presence of pus in both tubes will clear this point.

Tendency to Attack the Left Fallopian Tube

Infection due to absorption of decomposing secundines *in utero* shows a decided preference to invade the left fallopian tube. The reason why the left side is usually attacked after an incomplete abortion is found in anatomical facts, in which insertion of ovum in uterus and position of tube and ovary in relation to rectum take part. The infected tube presents, usually, the picture of a catarrhal salpingitis; even when pus is present, we do not see the extensive adhesions that are noticed in cases of gonorrheal infection, as the peritoneal covering is not involved. Again, we have in this peculiarity a point of diagnostic value. Whenever I find a diseased condition of the left side, I enquire into the character of past confinements or the possibility of early abortions, and it is seldom that my suspicion is not corroborated by the history of the patient.

In case examination reveals an inflammatory deposit even of old date in one or both adnexa, a curettage should only be done with the greatest care, avoiding forcible pulling of the uterus. If such cases are handled in a careless way, the operator will, to his chagrin, see an inflammation follow this simple interference which may result disastrously. Adhesions harboring pathogenic germs have been broken down, allowing the germs to invade the surrounding peritoneal coverings. At best a local peritonitis results which leads to pus formation, a pelvic abscess is formed which has to be dealt with by vaginal incision, causing a very slow recovery. Such cases we see very often in hospital service; they could be managed better by using proper judgment. These are no cases for curettage, for the uterine flow is depending mostly on the diseased state of the adnexa. At all events, the flow will recur. The proper remedy is laparotomy.

Of other conditions the polypoidal endometritis forms a small contingent of suitable cases for curettage. Larger polypi, especially when situated high in the body of the uterus, cannot be removed by the curet. They are usually submucous myomatous nodules which have a rather broad insertion and should not be looked upon as polypi proper. I have seen the uterine tissue to tear clear through during an attempt to twist off such a nodule. Polypi lower in the uterus, especially in the cervix, can be scraped or twisted off. The curet will remove readily other small ones which are usually present.

Another class are the malignant cases. Here curettage is done mostly for diagnostic purposes. I have had a few examples in my early practice, where I have been too vigorous in such cases. It is especially sarcoma which I have learned to fear in this respect. For microscopical examination but little material is necessary, and yet we feel tempted, when meeting the softened tissue, to do more than is necessary. Sarcoma responds quickly to a vigorous curettage. In two cases I have reason to believe that I caused untimely death of my patients, both cases running through a rapid course of general systemic infection, not giving me any time to remove the sarcomatous uterus. The best way then is to remove no more tissue than absolutely necessary and to let hysterectomy follow, when indicated, as quickly as possible.

Curettage should not be performed for myomatous uteri. When these cases give rise to profuse bleeding, we have to deal with the submucous variety. A scraping will deprive these nodules of the greater part of their capsule, and sloughing may result. Hysterectomy in such cases ought to be performed as early as possible: do not wait until the patient is exsanguinated, for such cases offer a poor prognosis.

Some of the Mishaps

In closing, a few words as to mishaps. Now and then a pregnant uterus is curetted as the result of a careless examination. The dilatation of the cervix and the inser-

tion of sound or curet does not absolutely result in an abortion, especially in the early stage of pregnancy. If not too much manipulation has been done, the case ought to be left to nature, it will be ample time yet for curettage when abortion is going on.

A case calling for curettage for persistent bleeding after a suspected abortion may turn out to be a case of tubal gestation. Here we must bear in mind that mechanical irritation of the uterus produces contraction of this organ as well as of the pregnant tube. An examination, while the patient is still narcotized, after finding the uterus somewhat enlarged but empty, ought to clear up the point and induce the operator to take the necessary steps. A curettage for incomplete abortion after the second month has its risks. Never forget the softened condition the organ is in, and gauge your efforts accordingly. I have seen uteri as soft as butter; in fact, the weight of the sound is sometimes sufficient to perforate the tissues. The dilator will give the first warning; if the cervix yields under gentle pressure, beware of curet and irrigator.

But what is to be done when the accident has happened? A perforation of the uterine body by means of a sound is usually not followed by consequences, but the curettage proper ought to be postponed for some days, if possible. When the accident is of a more serious nature, caused by a larger instrument, a laparotomy may become necessary to close the rent and to remove blood clots from the abdominal cavity. I have found it preferable under such conditions to make a posterior vaginal incision, to tilt the uterus backward into the vagina, and to close the tear when extensive; sometimes a gauze tampon is all that is required.

Comparatively seldom hysterectomy is called for through a combination of circumstances. For instance, I removed a uterus after the uterine catheter had perforated the extremely soft organ and a bichloride solution of 1 : 1000 had been poured into the abdominal cavity through the irrigator. The nurse had made a mistake, filling the bag with bichloride solution instead of sterile water.

The blades of the dilator, particularly the slipping of the same, may cause an ugly tear of the cervix, the lower segment of the uterus and the broad ligaments. The bleeding from such rents is quite profuse. If we have a clean case before us, suturing is indicated; if there are septic surroundings, a packing and drainage of the wound is most proper.

Of mishaps of a remote nature we must mention the class of cases spoken of a little while ago, where curettage is followed by an infection of the peritoneum due to the invasion of pathogenic germs set free by undue force applied to the uterus. Usually a chill, followed by elevated temperature, shows the extent of the infection.

The ice-bag is here of good service; opium for three to four days. After an exudate has formed, hot bags will assist abscess formation. Pus ought to be removed whenever and wherever found.

As a consequence of forcible curettage, especially with the blunt curet, we now and then see atresia of the uterus, and oftener of the cervix. Usually in such cases the gauze drainage was omitted. Atresia cervicis may remedy itself with the next menstrual flow, or a hematometra may form, which can be relieved by an incision. Atresia uteri, though, is seldom amenable to surgical treatment, and then only when of recent date.

Extrauterine Pregnancy

With An Illustrative Case

By STARR KING CHURCH, M. D., Marshall, Michigan

EDITORIAL NOTE.—We are very glad to present this graphic description of extrauterine pregnancy, since it may be the means of enabling some physician to make a prompt diagnosis of a condition which is, as Dr. Church correctly says, not nearly as rare as is commonly supposed.

MY purpose in bringing up this subject is a two-fold one: first, that by a general review of its symptomatology and by the discussion which I trust will ensue it will strengthen my own powers of observation in the future; and, secondly, that it may serve as a reminder, stimulant and incentive to your own diagnostic acumen to be ever on your guard in the treatment of pelvic disorder among your female clientele.

There is no subject so likely to excite such a lively interest in the general practician as that of extrauterine pregnancy. It is a most mysterious process of life that an ovum can become fertilized and grow upon a ground so foreign to its normal habitat, and our interests are enhanced by the fateful possibilities which may at any moment determine a doubtful diagnosis and a moribund patient.

The Family Physician Should Recognize Them

These cases, in the first stage, as a rule fall into the hands of the family physician, and it is very important that he should be conversant with the details of the course of such pregnancies and the method of diagnosis.

We are prone to consider extrauterine pregnancy such a rare condition that we are not likely to meet with a case in the course of an ordinary practice even in a life-time; in this we are mistaken, however, since it is now known to be of comparatively common occurrence. This is no doubt due to the improved methods of diagnosis as well as to the better scientific medical and surgical training our graduates now receive as compared with that of former times.

There are six points where an extrauterine ovum may become lodged, from the ovarian to the interstitial implantation (both these very rare). The most common variety is the ampullar implantation [in the fallopian tube].

The Causes of Ectopic Pregnancy

As to the causes of this condition we may say, without going into the physiological process of a normal fructification, that it may be brought about by any cause whatever which tends to hold the ovum back until it is too large to travel further down the constantly narrowing tube. This obstruction may be in the form of adhesions or bands which bind the tube down, thus preventing the propulsion of the ovum but not necessarily preventing the spontaneous movement of the spermatozoa. Tumors of the tubal mucosa, fibroid tumors of the cornu of the uterus, diverticula in the tube and a long winding tube of a fetal type are some of the causal conditions which have been found after operation. In many cases, even where we have advantage of a clinical history and the benefits of microscopical examination, it is impossible to say why the extrauterine pregnancy did occur.

According to statistics it has been shown that there is a peculiar liability on the part of those women who have had one extrauterine pregnancy to be subject to it subsequently.

The Difficulty in Diagnsosi

The diagnosis of this abnormal condition naturally is what concerns us most, and it is not at all encouraging to feel that in the

earlier months it is almost impossible to discover it—often not until after the rupture of the sac. However, it should not be difficult to make the diagnosis after rupture has taken place provided the following symptoms are borne in mind, namely:

There has been a cessation of menstruation for one or two months; or, possibly, the patient may have missed but a few days or a week. Nausea and other changes usual in the early stages may be noted, also recurring colicky pains in one side. One of the most striking symptoms is the history of irregular uterine hemorrhages, which may be but a slight oozing, or may be quite marked, so that we might say that a condition of menorrhagia is one of the prominent symptoms. As a usual thing, however, the first symptom seen is a sudden attack of agonizing pain, and with this comes collapse and the sudden development of extreme and increasing anemia. There is a condition of most profound shock, with sighing, gasping respiration and an irregular and fluttering pulse.

As objective signs we sometimes note a tumor at the side of the uterus, which is sensitive to the touch, while this organ may be slightly enlarged. The anemia is very profound. There is little or no fever. Such are the train of symptoms in a well-defined case, but they are seldom seen all in any one case.

Principal Diagnostic Points

What, then, are the principal diagnostic points and from what other conditions must we differentiate?

First in importance stands the severe abdominal pain accompanied by the profound shock such as we should expect from an internal hemorrhage. Next there is a history of irregular menstrual flow. Thirdly, short colicky pains in one side. Such are the cardinal points in the symptomatology of the early stages, i. e., between the eighth and tenth week of a tubal pregnancy, and with this much made clear, one ought not to go astray in his diagnosis.

"What else can it be?" is what I said to myself over and over again in a recent case. "An abortion?" This comes to mind from the hemorrhage and pain, but when we have the agonizing pain and collapse, as before stated, it should almost eliminate the thought of abortion. Salpingitis or a pyosalpinx? In salpingitis we should have pain and nearly always fever; in pyosalpinx, on the other hand, while it might be more confusing to differentiate, we should not have the palor nor the sighing, gasping respiration of an internal hemorrhage. In appendicitis there is a chance to err. If we can get any history at all, there would be nothing to point to pregnancy, while in appendicitis there would be the rigidity of the rectus muscle as well as fever.

What Shall We Do?

Having made the diagnosis, the next question naturally coming to mind is, what are we going to do for the patient? If we are so fortunate as to diagnose the condition before rupture has taken place (and as before stated, this is an extremely difficult thing to do in the early stages), it would stand to reason that the proper course to pursue would be to take the patient to a hospital under the watchful care of a competent surgeon, or, better, to perform an operation at once.

But in many cases we do not see the patient until after the rupture of the sac, with the patient in collapse. When this occurs, it becomes a surgical case. Now, shall we call the surgeon (assuming that the case is in the hands of one who cannot consistently call himself such) at once for immediate operation, or shall we wait until the bleeding has stopped and the shock subsided? That is the crucial moment, for upon your decision may rest the life of the patient. It is a position calling for the keenest judgment, and perhaps we can best answer it by saying that each case is a law unto itself.

Well and good, all this sounds all right. But supposing the surgeon comes and finds the patient in this state of collapse and says there is no time to lose, that the bleeding must be stopped at all hazards—are you going to let him? I should not if I had any say about it, and I think I should have

that if the woman were my patient. Will she bleed to death? Perhaps, I won't say she can not; but what causes this profound collapse? Is it the loss of blood *per se*, or that mysterious condition we call shock? I cannot help but believe that if you do not try to do too much to the patient in the way of overtreatment the bleeding will stop; if we operate, there will be much greater shock added to that already present and the patient will die. I am in favor of waiting a few days for the shock to subside and then to operate.

The Immediate Care in An Emergency

However, while we are arguing this matter, the patient needs our attention, so let us return to her and see what we can do toward alleviating her distress as well as pacifying the members of the household. Raise the foot of the bed from twelve to fourteen inches. The patient should be at absolute rest flat on the bed. Then administer salt solution in the breast or by slow enema. I cannot see the advisability of giving strong heart stimulants, other than, possibly, 1-20 grain of strychnine, for I believe more good will come from the salt infusion than from anything else. Possess your soul in patience, and in a short time, say a few hours, you will begin to feel a pulse with some volume, and the danger is passed, for the time being at least.

Now, perhaps some of you say that if the patient has recovered from the shock and seems in a fair way of recovery, an operation is not necessary. I grant that in some instances this may be true, and that spontaneous recovery does occur. But we do not know just what is going on in the abdominal cavity—the fetus may be dead and outside of the tube; still we know there are a lot of blood clots, and the chances of further rupture are great. So I should say that we should operate in every case in from twenty-four to seventy-eight hours after the shock has subsided, according to circumstances.

While my experience in this kind of cases has been limited, I should like to cite one which has been in my hands recently.

Mrs. C., married two years, no children nor abortions. Has always enjoyed good health except that five or six years ago she had what her physician diagnosed as appendicitis. She recovered from this, but for three years she was conscious more or less of a tenderness in that side, and she was urged to have an operation for appendicitis but refused consent. The last two years she has been comparatively free from any discomfort from this. I saw her about the middle of June last year, when she referred to her menstrual flow as being different from any she had ever had; she had gone four days over the regular time, the flow was slight, and had continued for two weeks.

She continued to flow in this way for two weeks more, when she said she menstruated in an apparently normal manner. This slight bloody discharge continued for another month, during which time she took various remedies without any appreciable effect other than to feel better generally. There were no symptoms of nausea or vomiting, and when I suggested that they were symptoms of an impending abortion, she felt certain that she could not be pregnant. Upon digital examination I was unable to detect anything abnormal. During the latter part of July she had had two slight attacks of colicky pains in the right side, the last one, being on the 21st, after which she complained of some pain and tenderness.

The Patient Goes Into Collapse

On the afternoon of August 2 I was hurriedly called and found the woman recovering from what had been a very severe pain. Her pulse was weak and thready, and there was considerable tenderness above and to the right of the uterus. This was followed in a short time by all the symptoms of shock and collapse, and as I had been trying to differentiate between an extrauterine pregnancy and an abortion, I at once decided that it must be the former and sent for a surgeon for immediate operation.

While waiting, the condition of shock grew more and more profound, and the situation began to look hopeless with no assistance at hand but the husband. Hav-

ing no fountain-syringe, I injected into the breast salt solution by means of my hypodermic syringe, and also gave strychnine and atropine. When assistance had arrived the patient was practically pulseless, with sighing and gasping respiration, so that all thought of operating was out of the question. It was decided to give salt solution per rectum by the drop-method, and this was kept up for four hours, about a quart and a half being retained, so that by 11 o'clock there was a pulse of fair volume, the vomiting had ceased, and the patient had short intervals of rest between that and morning. Further consultation with Dr. Darling of Ann Arbor and Dr. Hafford was held that morning, and although all preparations had been made for operating, it was decided to wait until the patient was in better condition.

By means of complete rest, restricted feeding, and strychnine every four hours, her condition had so much improved by the following Friday (the rupture having taken place the previous Monday) that the husband was quite opposed to an operation, which, however, was nevertheless performed under ether. The diagnosis was confirmed by the finding of products of conception surrounded by a large blood clot in the right tube and of a large amount of fluid blood and of blood clots in the abdominal cavity. The tube was removed and the blood wiped out with gauze. The patient made an uneventful recovery.

"What Was the Trouble?"

As this lady was quite prominent socially, it was a matter of much surprise to her friends when she was so suddenly stricken, and of course they wanted to know "what was the trouble." The family wished to keep it quiet and so I did not say anything, but the thing apparently leaked out somehow, as the following conversation, overheard at the "sewing circle," shows.

"Did you hear what was the matter with Mrs. C?"

"Yes, I know all about it."

"Oh, do tell me."

"Well, it was like this: There was a conception, but instead of being in the womb, it was lodged on the outside, and it is what they call 'immaculate conception.'"

[Funny, how these things will get out, and then generally are garbled. The doctor often is accused of tattling, but in ninety-nine cases out of a hundred the leak is in the family. "Immaculate conception" is good!—Ed.]

The Treatment of Hay-Fever

Modern Methods of Handling a Troublesome Disease

By THOMAS H. SHASTID, A. M., M. D., Marion, Illinois

AT this time of year a physician is often much worried by cases of hay-fever. It may therefore be well to pass in review, briefly, exactly what can and what can not be done for this distressing affection.

The treatment of hay-fever falls naturally into three divisions: the surgical, the medical, the climatic.

The surgical treatment is often most important. People who suffer from seasonal hay-fever are nearly always found to be afflicted also with hypertrophic rhinitis, with patches of erectile tissue on the septum or the floor of the nose, or with anterior ethmoiditis. In a large proportion of the cases which have come within my experience there has been trouble with the anterior ethmoidal cells. After operation, these patients have ordinarily been remarkably free from all hay-fever symptoms. Those suffering from hypertrophic rhinitis are also often greatly benefited by operation, though not always cured entirely, while patients

possessing the troublesome patches of hypererectile tissue often have to be attended to every year just before the beginning of the hay-fever season in order to be kept even reasonably comfortable.

Palliative Treatment

Some patients do not need surgical attention. These sufferers are the hardest to cure; nevertheless, much can often be done for them.

A drop of a 1:1000 adrenalin, adnephrin or suprarenalin solution placed upon the tongue, every hour, and not swallowed but allowed to be absorbed through the buccal mucous membranes, is often a palliative of great value. Atropine, gr. 1-60, taken by the stomach morning and evening, has proved to be of distinct service, but, of course, it disorders the secretions and possesses also the decided disadvantage of weakening the accommodative power of the eyes (temporarily, of course) in many persons and producing dryness and soreness of the throat. Calomel and saline laxatives should always be given in conjunction with it. Moreover, the use of atropine should always be intermitted every third or fourth day, to prevent cumulation and the development, suddenly, of delirium.

Morphine and cocaine would better be dropped entirely from the list of drugs to be employed in the treatment of hay-fever. If used, they are exceedingly apt to produce pathologic conditions far worse than those of hay-fever, while lasting, moreover, a good deal longer than a few weeks out of each year. With pollantin I have had no success whatever; others, however, have had a slightly different experience with this drug.

Attend to Stomach and Bowel

Important in all cases of hay-fever, and likely to be neglected in many instances, is attention to the stomach and bowels. Small doses of calomel and aromatics, together with the sulphocarbolates, frequently repeated all through the course of the attack, and washed away daily, or twice daily, by saline laxatives, have proved, in my hands, of the greatest benefit. It is altogether possible that autointoxication plays no small part in the genesis of hay-fever.

The climatic treatment is important for such patients as are financially able to take it. Not all hay-fever resorts are of equal value. For persons living in the East, perhaps the White Mountains offer the best haven of refuge. For those in the middle and the western states, the Charlevoix and Petoskey country and Superior (Wis.) have been of much benefit. The trouble, however, with these last-named places is that patients sojourning there are apt to suffer from hay-fever again whenever the wind blows from the south.

Best of all the resorts, in my opinion, though not the best known, is Port Arthur, Ontario. I have directed a number of patients to this resort, and all have informed me that they had no hay-fever at all as long as their stay in that place lasted. This port is easily reached: a night trip from Chicago *via* the Northwestern or the Soo railroad to Duluth, and then across the lake to the Canadian shore. In this thriving little city (where, by the way, the comforts of home may be had at low prices), when the wind blows from the south it simply rolls across Lake Superior, the largest body of fresh water in the world, and is absolutely free from pollen.

In whatever way we treat hay-fever, we are certain to meet with cases that baffle our best skill. Most hopeful are all such as present indications for surgical interference. Many of these cases can be cured entirely, and the others can be greatly helped. In the remaining class of cases medicine sometimes cures, sometimes merely palliates. When it merely palliates, and does not palliate sufficiently, then a "change of venue" should be taken, provided, of course, the applicant be able to pay the costs.

Lessons in Hot-Air Therapy

By EDWARD A. TRACY, M. D., Boston, Massachusetts
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EDITORIAL NOTE.—The treatment of sciatica is considered in this number, which is "Lesson Three" in this hot-air therapy course, which was temporarily suspended some months ago. Every reader of "Clinical Medicine" will be glad, we are sure, to see it resumed.

SUCCESS in the treatment of disease by means of hot air is based on accurate diagnosis, just as in the scientific use of drug-remedies we must know the condition to be treated and the effects of the drug to be employed in the treatment of the case.

The great power for good in scientific drug-treatment is an everyday fact of experience for the students of "clinical medicine." And this notwithstanding the large amount of ignorance of drug action prevalent among some of the prominent men in the profession.

Drug Efficacy Not a Matter of Belief

Not long ago I had as consultant in one of my cases a man of world-wide reputation as pathologist and diagnostician. Upon my mentioning the drug-treatment of the case, he suggested that habit of mind was probably the cause of belief in drug efficacy. I replied that I do not have to believe that atropine given in dosage of 1-250 grain every half hour will make the patient red in the face and cause dryness of the throat. It will do it, no matter what my belief. I do not have to believe that strychnine given in dosage of 1-30 grain frequently repeated will finally cause the patient to try to stand on his head and heels at the same time (opisthotonus). The drug will affect the patient in this manner no matter what my personal belief or creed may be. In other words, drug action is a matter of observation, is objective; it does not depend on the prescriber, is not subjective.

There is a science of drug-therapy, just as there is a science of pathology, but some very eminent pathologists appear to forget that.

As has already been remarked, success in the use of hot-air treatments depends on accuracy of diagnosis. In this paper its use in the treatment of sciatica will be briefly considered. What is meant by sciatica?

A Variety of Conditions Masquerade as Sciatica

It is well to bear this in mind, so that these masquerading conditions may be recognized and eliminated. Lumbosacral osteoarthritis, sprains of the sacrailiac joints, tuberculosis of the sacrum or of the lower lumbar vertebræ, and chronic osteoarthritis of the hip-joint, have all been treated and diagnosed as sciatica.

When the socalled sciatica is on both sides, the trouble as a rule is due to spinal disease, either in or about the spinal cord (as tabes dorsalis; very rarely a pachymeningitis), or to a disease in the vertebræ, as osteoarthritis or tuberculosis. Sometimes also a peripheral neuritis with Bright's disease, diabetes mellitus or chronic alcoholism as the causative condition will give great sensitiveness along the sciatic nerves and mislead us into thinking that we have simply sciatica to deal with. The important point to note is, that, with both of the sciatic nerves affected together, the basic pathologic lesion is central in the spine, or is constitutional, as in diabetes or in chronic alcoholism. Of course in many of these cases there is a sciatic neuritis present, but it is secondary to the other pathologic condition.

Sprain of the Sacroiliac Joint

This is recognized by tenderness on pressure over the joint that is affected, and soreness in the same spot felt when both the iliac crests are pressed together. This joint

injury should always be tested for in the examination of a patient.

I have seen a case, in consultation, in which an old physician had suffered a sprain of one of these joints and had taken hot-air treatments for a year. He found the treatment relieved him but did not cure. His diagnosis was traumatic sciatica and injury to the hip-joint. The hip-joint had not been injured and there had been no symptoms of primary sciatica. He had suffered a wrench of the right sacroiliac joint, and the best treatment would have been rest in bed and a wide belt around the pelvis holding a pad snugly over the sacrum. I have treated two cases of persistent loosening of sacroiliac joints that occurred in women sequential to difficult labors. A pelvic support molded from woodplastic material and worn for six months in both cases relieved the almost complete disability produced by the lesion. I mention these cases to bring the attention of those in obstetric practice to this lesion.

The remarks applied to the diagnosis of sprain of the sacroiliac joints apply to tuberculosis of these joints. If the bacilli are in the blood current a slight sprain of one of these joints is likely to be followed by tuberculosis of the joint. I recall a case treated for three months as "rheumatic sciatica" by a good surgeon of the old school, in which this condition was present. Five months' complete rest in bed and three months of pelvic support by means of a molded woodplastic splint produced a cure.

Real Sciatica Defined

Having described conditions often masquerading as sciatica, the real condition of primary acute sciatica will be briefly defined. It is a perineuritis of the sheath of the sciatic nerve at its exit from the pelvis over the sciatic notch, or starting a little further down on the nerve and affecting it sometimes as far as the middle of the thigh. The nerve-sheath is swollen, reddened, thickened, and some observers have noted an exudate. The tenderness on pressure over the course of the nerve and the symptoms of severe lancinating pains on movement are explained by the involvement of the nerve-filaments supplying the nerve-sheath in the inflamed portions. The tenderness is most marked usually at the fold of the buttock, just over the sciatic notch.

At this stage there is no wasting of the muscles and no anesthesia. Flexing the hip, with the knee straight, causes severe pain, because of the tension put on the affected nerve. The gait is characteristic for the same reason, and the patient walks with the body slightly bent forward and toward the affected side; the knee is kept slightly flexed and the pelvis is swung forward with the affected limb, to lessen as much as possible the amount of movement in the hip. In severe cases the pain is so excessive as to permit no movement whatever.

Mode of Treatment

Two modes of using hot air are applicable in sciatica. One is the hot-air douche, consisting of a stream of hot air (as hot as can be borne) directed over the course of the nerve, especially over the sensitive portions. This should be applied for an hour once a day. In many cases the patient can direct the current over the parts himself. The other mode of application is by having the back of the affected thigh exposed to the influence of a hot-air chamber. Either mode of application can be used with my modification of Bier's hot-air apparatus, manufactured by The Lister Company of Boston.

The object of both methods is to produce an active hyperemia, manifested by a bright reddening of the skin, bringing into increased action the analgesic, dissolving and absorbing properties of the blood current, already treated of in these lessons. (See CLINICAL MEDICINE for May, 1909.)

In very severe cases Abbott's "clean-out, clean-up and keep-clean" modification for the bowels is indicated. If the patient be a large consumer of albuminoids, a modification of diet, the lessening of albuminoid intake (meat, fish, eggs and cheese) is desirable. If the urine be hyperacid alkalis are indicated.

If it be asked why this medication should be carried out with hot-air treatment, I answer, the doctor should use all rational

measures of relief and cure in the treatment of disease, whether of diet, medication or physical measures. A faddist or hobbyist will see nothing of use outside of his hobby. The trained physician uses all the means that his experience and knowledge directs him to in the treatment of disease.

In the treatment of acute primary sciatica hyperemia produced by hot air has a physical effect in removing the exudate present that no drug so far employed appears to have. Therefore it is indicated in the treatment of this condition. I could cite the history of several cases of sciatica that yielded rapidly to this treatment after the failure of drug-remedies alone, but will save space with a simple statement of the fact.

In the next lesson the hot-air treatment of subacute and chronic rheumatism will be considered.

Heredity in the Causation of Inebriety

Read before the British Medical Association, at the Belfast Meeting, August, 1909

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ALL practical students of inebriety, alcoholism and the drink-neurosis are astonished that the heredity of this form of disease should be questioned and denied.

If it were a matter of theory, based on laboratory reasonings, there might be some reasons for doubt, but as it depends specifically on clinical studies and observations, accessible to everyone, it is surprising that such evidence has not been considered in the discussions of this topic.

The facts of heredity observed in an investigation of the history of a single family, noting all the conditions and peculiarities that are transmitted from one generation to another, will shed more light on this subject than all the theories and speculations of the past.

Such studies show a marvelous uniformity of cause and effect, governed by laws little known, yet moving with the exactness and certainty of all other phenomena of nature. It is the tabulation of these clinical facts, and a comparison of their similarity seen in parents and children and going down through the generations that has proved the laws of inheritance.

My purpose is to offer some additional facts on this subject, not exhaustive or outlining any new phase, but simply to confirm the conclusions of others, and if possible bring new interest for a more thorough clinical examination of the facts so accessible to everyone.

Basis of the Conclusions Arrived At

In an experience of thirty-five years of constant care and treatment of inebriates I have studied and outlined the history of 4400 cases. Some of these histories have been minute, others were general. These studies were begun when the physical causes of inebriety were denied, and only moral forces and conditions were recognized.

These studies began with the histories of ancestors, their habits and living, and comparisons between the physical life of the parents and children and the similar causes and physical conditions.

These studies brought out the startling fact of the exact reproduction in parents, from their ancestors and down to their children, of physical and mental conditions, indicating great laws of evolution and devolution that control with startling exactness.

The Story Told by Statistics

In a tabulation of some of the causes of inebriety, either as active or contributing factors, the ancestral history seems to throw more light on the etiological conditions than a study of the present state.

In more than 70 percent of inebriates whose history was tabulated the ancestors drank spirits moderately or excessively. In 20 percent only were such histories negative, disease, injury, shocks, strains and infections being the more active causes.

In 5 percent starvation and poisoning were clearly exciting causes, while in the remainder the conditions were complex and often psychical. Of those whose ancestors showed defects due to, and associated with, the use of spirits there were two distinct classes, viz., one in which the parents and grandparents used alcohol continuously and to excess; the other, in which the parents and grandparents suffered from other diseases, principally neuroses, and whose use of alcohol was not so prominent, and more symptomatic.

The Group of Direct Heredities

The first group was called "direct heredities," and more than 50 percent were tabulated in this class. The children from these parents gave a history of severe diseases in childhood and general nerve defects, marked by low vitality, feeble resisting power, and slow recovery from ordinary diseases, with distinct entailments. Many of them were given spirits for the ailments of childhood as a medicine, and in some instances a distinct craving and pleasing effect followed.

At puberty such children exhibited eccentricities, often marked precocity and genius, with intense mental activity, followed by profound exhaustion.

Spirits as a medicine for its supposed stimulant and tonic effects were found to be most grateful remedies. In others alcohol was not used in any way until later in life, and then for some distinct purpose, such as exhaustion and strain, and here its seductive effects were very marked.

In a number of cases the impulse to use spirits broke out suddenly and led up to great excesses, then died out. This often followed exhaustion and physical depression.

In these cases the effect of alcohol, both as an irritant, excitant and pleasing narcotic, was most profound. Both the physical and mental impressions were permanent and grew in intensity in later life.

Many of the facts showed that the children drank in very much the same way that the parents did, both as to time, conditions and surroundings. Thus in a number of cases the drink-impulse broke out at about the same time of life in two or three generations. Such persons were temperate and lived normal lives up to a certain time, then suddenly began to use spirits to excess, with or without any reasonable cause. In one instance the ancestors were midnight drinkers, seldom using spirits until this hour of night. The children followed the same custom.

In another family insomnia was a common disease, and after the age of forty every member became a drink- and drug-taker for this condition. In one instance successive members of the family running through two or three generations drank only in holiday seasons. At other times they were comparatively temperate.

Travel seems to have been the starting point for the drink-impulse. Thus the children of several generations who were noted as total abstainers after travel abroad returned with the beer- and wine-drinking habits and quickly became inebriates. Those who remained at home continued temperate.

In many instances the descendants followed the parents in using spirits on occasions of great emotion or excitement of any kind. At other times they were temperate.

Atavism appeared in many families. It is computed that at least 10 percent of such cases were traceable to grandparents whose excesses were peculiar and marked. In most of these instances the parents were abstainers and exhibited an aversion and immunity to the effects of alcohol, but their children drank in so pronounced a way and under conditions so similar to their grandparents that the connection could not be mistaken.

Indirect, or Complex, Heredities

There is a form of psychical heredity in which children from inebriate parents show marks of great excitement, which resem-

bles intoxication, without having used spirits. Often such persons will become greatly excited from anger, sorrow, and other causes, and appear like persons intoxicated. This indicates the transmission of certain peculiar pathologic conditions not understood at present.

In a second class of indirect heredities, or complex inebrieties, there is the same startling transmission of mental and physical characteristics associated with the use of spirits.

Thus parents who are consumptive, hysteric or epileptic will have children who show marks of degeneration and who use spirits and drugs with and without reason. In early childhood such children exhibit peculiarities, mental instabilities, morbid impulses, with susceptibility to exhaustion, and great mental activity or dulness, with wide extremes of emotional and morbid impulses.

From this source frequently come epileptics, idiots, low-typed criminals. The dipsomanias, circular insanities and epileptoid drink paroxysms appear. The degenerations marked by consumption, epilepsy and alcoholism turn into a vicious circle in which a great variety of neurotic and organic diseases appears. Many children of inebriate ancestors die of consumption or develop epilepsy from the slightest causes, even where the parents recognize the degenerative tendencies and struggle hard to overcome them.

Mental peculiarities break out which indicate the abnormalities. There is a large number of children whose ancestors were active business men, who used spirits in moderation or excess, and who not only transmitted to their children intense ambition, and intermittent activity, but low vitality, diminished power of resistance, and to overcome pernicious habits or impulses that are wrong. Frequently such children are periodic drinkers, and in the free interval they make great efforts to build up a degree of total abstinence that will prevent relapse. Evidently a convulsive condition of the nervous system is transmitted which gathers and breaks out at intervals.

The periodicity of the drink-impulse is another unexplained phenomenon which appears very frequently. While it is a veritable circular insanity, no one has yet offered any explanation of its exact reappearance as to time and place.

A number of instances were noted in which the drink-impulse appeared with exactness at intervals of thirty, forty or ninety days, and sometimes of twelve months. This impulse would break out suddenly and impel the victim to drink under all circumstances and conditions, then after a period of a few days die out completely and be followed by intense disgust and aversion. It was noted that most of these cases appeared in families whose ancestors had been very active brain-workers, some of them using spirits and others being abstainers.

In one study about 40 percent of all inebriates were found to be periodic drinkers, and about 20 percent indicated the parental history of the same form of the use of spirits. It was found that about 20 percent of the whole number were wine- and beer-drinkers.

The children of such parents seldom ever used spirits in moderation, but always were paroxysmal and excessive drinkers, or else strong total abstainers. It was also noted that many descendants of inebriates were very active reform-workers, showing unusual energy and zeal in promoting the cause of temperance.

In some instances these zealous reformers became secret drinkers and disappeared from public view for a time, then returned with greater energy and zeal. Evidently such persons are impelled to do reform-work from an instinct of the danger of their inheritance, and only by helping others can they save themselves.

American Cyclic Inebriety Due to Strenuous Life

It is evident that a very large amount of inebriety in America is of the periodic type, in which there is a gathering and exploding of nerve-energies—a sort of a cyclonic demand for help from the strain of modern living.

This is largely owing to the incessant changes and efforts to adapt oneself and to take advantage of the new surroundings and conditions which are constantly presenting themselves. Moderate drinking in America is becoming a physical impossibility. Persons who go abroad for health and come back with great faith in the moderate use of wine and beer soon go on to great excesses in drink, dying early from intercurrent disease.

The effects of mixed drinks and complex alcohols seem to appear in the descendants, particularly in the masked insanities and peculiar neuroses which break out in the children.

A hypersensitiveness to the effects of spirits is another marked peculiarity seen in the descendants of alcoholics. This sensitiveness may be either seductive or repulsive.

Another fact: Where parents have drank for a limited period, then have abstained, the children born during the former period show a marked difference in self-control and temperate living compared with those born later, when the parents were total abstainers. Thus in many instances the drinking descendants were the first-born children, when the parents thought wine and beer was a luxury and a safe remedy. Some remarkable facts along this line await further study.

Mental Aberrations

Many descendants of alcoholic ancestors are intensely sensitive to their condition, others are indifferent to the effects.

In the former this sensitiveness amounts to delirium, followed by despair and suicide. In the latter it is practically paralysis, both physical and mental. It was evident that the children of drinking parents, while not using alcohol, display a great variety of mental perversions, dietetic and sexual excesses, credulity, egotism and paranoiac conditions, which place them in the borderlands of physical and mental health. The fact is prominent that active brain-workers and persons who are intelligent and of the more-highly developed classes more positively transmit the degenerations from the use of alcohol than those lower down in the social scale; also that the drink-impulse in children of this class seems to become exhausted and dies out from causes little known—particularly physical changes of the organism.

It was also noted that defectives and degenerates have for descendants inebriates who contribute very largely to the demented and criminal classes, particularly the insane, and those who die early of organic diseases.

The great submerged classes of our large cities are the direct progeny of parents who have failed to transmit normal, healthy brain-force and power. Innumerable facts appear along this line that are not questions of theory but facts which a further study will bring out.

Causation of Drink-Craze is Physical, Based on Unknown Laws

The physical causation of the drink impulse, the drink craze and the drink symptoms is beyond all question. The fact that the defects, degenerations and diseases of inebriates appear, to the extent of 70 per cent, in their descendants, establishes beyond question the transmission of defective germ-cells and germ activities.

Alcoholic inebriety, meaning an excessive use of spirits, produces organic defects and derangements of protoplasm, cell growth, cell activity, which are not limited, but go down to the next generation. The appearance of the same convulsive, unreasonable desire for spirits, breaking out about the same time and under similar conditions in one or two generations following, must be due to the operation of laws which are yet to be discovered.

Some unknown condition goes down, and the cell defect may be dormant, until it is aroused to activity by the application of a special exciting cause. There is one conclusion, with which the clinician is profoundly impressed, namely: Alcoholic ancestors transmit to the next generation, not only states of exhaustion, low vitality, feeble resisting power, but marked impulses to use alcohol for its pleasing narcotic effects.

Exact scientific study of the history of patients furnishes abundant evidence confirming this fact; also that the alcoholic impulse is only a symptom and not the disease; a degeneration and defect from the manifestations of which the patient finds in alcohol and other narcotics the most pleasing though dangerous relief.

What is needed most is an accurate study of the physical causes and conditions which impel men to drink spirits, take drugs, and become drink- and drug-neurotics.

The Narcotic Drug Addictions

Etiologic Factors and Principles Involved in Treatment with Reasons for Past Failures

By GEO. E. PETTEY, M. D., Memphis, Tennessee

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THE alarming rate at which the habitual use of narcotic drugs has increased during the last four decades is a matter which should give us the deepest concern. Two or three factors have contributed to this result. The first and most important is the popularizing of the hypodermic syringe which has occurred during that time. Before the introduction of the hypodermic syringe people had not been taught to expect relief as soon as the physician arrived. Then, the physician was free to administer such remedies as were indicated, and the patien had no other idea but that he must wait a reasonable time for relief from them.

During recent years, however, the people have been taught to expect relief from pain as soon as the physician arrives. They understand that he can give a hypodermic dose and that immediate arrest of pain will follow. This demand is so urgent and universal that many physicians fail to withstand it. Every physician understands that if he will not yield to it some other may be called who will do so. But as he does not wish to surrender his case to a competitor, he feels almost compelled to yield to the demand of the patient or the latter's friends for immediate relief. So he gives the soothing potion, and thus unwittingly contributes his moiety to the education of the public in the wrong direction. Should the patient's ailment be a chronic painful one, the repetition of these doses often leads to complete enslavement. A majority of the victims of narcotic drugs among the laity trace their addiction to the administration of drugs by a physician. But many a member of our own profession is falling a victim to enslaving drugs also. It is a fact that the use of narcotics has increased even more rapidly among medical men than the laity.

Why So Many Physicians Become Morphine Habitues

It would seem that of all persons the physician should be the last to fall into such a snare, that his professional training, his knowledge of the evil consequences of the use of narcotics should effectively fortify him against using them. The facts, however, do not bear this out. A much larger percentage of physicians is addicted to drugs than is found among the members of any other calling. Let us see if we can reach some rational conclusion as to why this is so.

Unfortunately many persons enter the profession of medicine as they do other callings, without definitely fixed convictions upon some fundamental questions. In the life of every man there should be a few questions, at least, which are settled for all time to come. Among these should be his accountability to his Creator, loyalty to the flag of his country, confidence in the honor of his father and the virtue of his mother, and his determination to maintain his own

fidelity to his wife. These questions should be so fully settled as not to be open to debate even with himself. For one entering upon the practice of medicine I would add to this a fixed conviction that one who lives by his brain must not work under stimulation, that he cannot afford to extend his working hours by the use of stimulants.

One entering the profession of medicine without definite convictions on the point last mentioned will allow circumstances to dictate his course. If he is well qualified and energetic and settles in a community where his services are in demand, he may, in a few years build up a practice that taxes his strength. Coming in after a full day's work, he finds other calls awaiting him. He is tired, in fact his strength is exhausted and he should not undertake more; but he reasons that some of these calls are from people whom he cannot afford to turn away, that he must go. In order to whip up his flagging energies to enable him to meet these extra calls he takes a stimulaut. Yielding to this temptation is often the first step toward ruin.

If this man is brainy and successful, his work not only continues but grows, and he is frequently confronted by emergencies which call for the expenditure of more strength than he can spare, and so, from time to time, he resorts to stimulants of one kind and another to enable him to meet this additional work.

Morphine Relieves Fatigue in Emergencies

Whisky is usually taken for a while; but that soon begins to show on him and its tell-tale odor on his breath is something he would like to avoid. In seeking something to take its place an eighth of a grain of morphine is tried. This, he finds, overcomes the sense of fatigue and tides over the emergency more satisfactorily than did whisky and apparently does not have as bad after-effects. His work increases and demands for more working hours continue to come, and soon he finds himself resorting to the stimulant more and more often.

Then he begins to think about the matter and asks himself the question, "Am I taking any risk in doing this? It is true, I should not advise anyone else to do as I am doing, but I have perfect control of myself, in fact I know myself and I can take it or not just as I wish." He tries such omission, and the fact that he can, at this stage, take it or leave it alone at will leads him to feel that he is entire master of the situation, and in that belief he goes on taking a dose occasionally and at other times refraining from doing so, but always fully confident of his own power of self-control. Thus his overconfidence in himself, coupled with a lack of convictions, leads him to resort to the drug to lengthen out his working hours and to sustain him in every emergency, either real or imaginary, until before he is aware of it he has reached a stage where he finds himself unable to do his work without the support of an artificial stimulant.

At this stage he still could stop the use of the drug if he would quit work, but he feels totally unequal to the tasks before him unless he has the support of a stimulant. He realizes that he should go away for a rest, but if he goes away his clientele will fall into the hands of his rival and he thinks he cannot afford to allow that, or possibly he is in a section where there is no one to take his place. He has some very sick patients on hand and he feels that their lives would be jeoparded by his leaving just at that time, or his obstetric engagements are such that he could not get away without leaving them unprovided for. Reasoning thus he continues to work under stimulation and to put off to "a more convenient season" taking the rest which would enable him to stop the stimulant, until, before he realizes it, he has passed the point at which he could stop it even by quitting work. In fact, he has inadvertently woven around himself chains which he is in no wise able to break. He is a helpless victim in the hands of a monster with whom he is unable to cope.

The Habit-Motives not Vicious

Now, the motives that prompted this course were not vicious, neither did real elements of dissipation enter into it. To hear some of these victims relate their experi-

ences, the impelling necessities under which they continued to work after they realized they were endangering their own freedom in doing so, would almost lead one to justify them in that course. Many of them have felt that they were making the greatest personal sacrifice in continuing to meet the professional obligations that were upon them, obligations which they regarded as sacred and which they felt they must meet even if it involved a sacrifice of themselves. This is in substance the history of probably seventy-five percent of professional men who have fallen a victim to morphine. These victims have been drawn from among our most talented and active men, and this has occurred, as a rule, during the first ten years of their practice.

It is not just to class these men as perverts and to stigmatize them as fiends, to brush them aside as men who are wilfully abandoned to a loathsome habit which they could quit if they would. Their numbers are too great and they come from too respectable a source. The only blameworthy elements that entered into their enslavement were, first, lack of fixed convictions as to the use of stimulants, overconfidence in their powers of self-control, with probably an inordinate ambition. These conspiring together led the victim to hopeless slavery before he was aware of it.

The number of persons in this country who become addicted to narcotics as a real dissipation is comparatively small. The indiscreet use of the drug for the relief of pain is the chief cause of the addiction among the laity, and its use by physicians to enable them to work more hours accounts for the addiction in a majority of instances where this class of men is involved.

The Professional Attitude Toward Narcotic Victims

The attitude of the profession toward the victims of narcotic drugs is not commendable or even reasonable. Little effort has been made by members of the regular profession to relieve them, and this has left them almost entirely to the charlatans and nostrum venders, from whom satisfactory results in the treatment of any disease was not to be expected.

Until very recently the few reputable men who have endeavored to restore them to health have followed such faulty teachings that their results have been almost as disappointing as the irregulars. Addiction has been classed as a mere vice, an appetite and unnatural craving, a dissipation, a mere habit existing because of the moral perversion of the addictee. Being unable to demonstrate a structural pathology it was held that there was no pathological condition present, that the pathology was *nil*. Reasoning from this, according to the teachings of the structural pathologist, if no structural pathology was present, no disease existed. No disease being present, there was nothing to treat. The sole indication therefore was to withdraw the poison. Authors whose works are of very recent date show no advance toward the truth in this matter. A few quotations will suffice.

"The indulgence of morphine is a *vice* of recent years."—Osler's "Modern Medicine."

"Morphinism: An irresistible *craving* for morphine."—Tyson's "Practice," 1906.

"When the disease is developed there exists an irresistible *craving* for the drug, and it is this artificial *appetite* that is the chief difficulty to be overcome in the treatment. It is the *craving* for an unnatural stimulant that must be fought; if this *craving* is overcome, all the rest is comparatively easy."—"American Textbook of Applied Therapeutics."—Wilson.

"Treatment: Withdrawal of the poison is the main indication."—Gordon's "Diseases of the Nervous System," 1908.

Such teachings as these have led the profession to look upon all drug-addicts as wilful perverts, vicious, inveterate liars, purposeless wretches who allow themselves to be dominated by a mere appetite. The advice usually given them is to quit the use of the drug, which many physicians still suppose they could do if they would.

Narcotic Drug Addiction a Functional Disease

Fortunately during the last few years the structural pathologists have to some extent

lost control of the profession and some men have been bold enough to say that disease may exist without a structural pathology; in fact, that there is such a thing as a "functional" disease.

The narcotic drug-addictions belong to this class. While there are no structural lesions peculiar to them, there are functional derangements of the most striking character, in fact, the functional activity of every organ in the body is impaired. So grave is this impariment that if the supporting and restraining effects of the narcotic be suddenly withdrawn, the patient goes into profound collapse from which he may die or become insane. Should he escape these he would be called upon to endure suffering that defies description. Should the withdrawal be gradual the suffering incident thereto is still so severe that no patient will endure it unless he is compelled to do so. Notwithstanding it is well known that the withdrawal of the drug is always followed by suffering of the most intense character, and even by dementia or death, men of high standing in the profession, who write medical books and whose teachings are supposed to be worthy of credence, still continue to speak of the morphine-addiction as an "appetite," a "vice," a "mere habit" and to maintain that the principal indication in the treatment is the withdrawal of the drug. These men have evidently written of this condition at long range and merely continue to repeat the statements of some former writer who also drew his conclusions from sources other than clinical experience.

The man who is addicted to a narcotic drug is as truly a diseased man as one who has typhoid fever or pneumonia. The necessity for therapeutic measures is as great and the indications for their employment are as positive in the one as in the other. Why these important measures are totally ignored by leading medical writers is beyond comprehension.

The Writer's Experience

During the last ten years I have directed the treatment of more than two thousand drug-patients, and the results in this series have been such that during the last eight years I have not had occasion to modify materially my plan of treatment. In my early cases I reached the conclusion that the drug-habitué who was to be relieved from his addiction was really a sick man and that he should be treated as such, and that any physician who regarded him as a pervert and his addiction as a mere appetite or vice, of which he is to be broken, was, because of such opinion, totally unfit to undertake the treatment of his case. A careful physical examination revealed the fact that every organ in his body was in a deranged condition. The indications for therapeutic measures to correct these derangements were as positive as they would have been had the same derangements existed in one who was not addicted to a drug. These patients were found to be in an extremely toxic condition.

To relieve this toxic state, all the excreting organs were urged to increased activity; and this treatment was persisted in until the system had been fairly well cleansed. When this had been attained it was found that the drug could be withdrawn without the development of many of the distressing symptoms which had always been encountered before when the withdrawal had been undertaken without this previous preparation. This step was taken in disregard of all former teachings on the subject, but I now realize that it was the first and most essential step in the development of a rational treatment for these addictions. Other indications were met as they arose, and in a remarkably short time, by a simple application of the general principles of medicine, the patient was brought into a condition in which all desire for the drug was gone and there remained no further necessity for its use. There was no suffering because of abstinence from it.

The "Craving" and the Cure

All the authorities held that if the "craving" for the drug could be overcome the patient could be considered cured and I thought then that this was true, but I now know it was not. While the elimination of the toxic matter, upon the presence of which most of the painful complications depended,

the withdrawal of the drug and the cessation of all desire for it were important steps, *th y did not constitute a cure* but merely brought the patient into a condition in which convalesence could begin. The management of the patient after that time was found to be just as essential to his permanent emancipation as these primary steps were to the beginning of convalescence.

In the treatment of this series of cases I have formulated some definite conclusions, fully sustained by clinical experience, as herewith enumerated:

Autotoxemia is the essential pathology of the narcotic-drug-addictions.

When the system is freed from this toxic matter and the portal system has been disengorged, morphine and other narcotic drugs can be at once withdrawn without shock, collapse, heart failure, diarrhea or other dangerous symptoms, and the suffering incident to such withdrawal will subside within a few days' time without further treatment of any kind. This suffering, severe as it would otherwise be, *can be obviated and these days passed in comfort* by the discreet administration of hyoscine.

All desire for the opiate, as well as the necessity for its use, is overcome by such a course of treatment.

Patients thus treated have little, if any, tendency to relapse, unless they originally began the use of the drug as a dissipation. In that case the same tendency to dissipate, the same perverse traits of character will remain and these cannot be overcome by therapeutic measures. Where no element of dissipation entered into the original formation of the addiction—that is, where the addiction was formed inadvertently or because of the use of the drug for relief during some protracted painful ailment, which has either disappeared or is curable—a permanent cure of the addiction may be expected.

Pain and Nerve-Strain to Be Avoided

No cure of a drug-patient can reasonably be expected by any plan of treatment which entails severe or protracted suffering, such as do the reduction methods heretofore in vogue. To effect a cure, the patient must be protected from severe nerve-strain and damaging mental impressions.

No drug-patient can be considered cured until he is made mentally and physically independent of all drugs, taught to rely on his own resources and fully convinced of his ability to do so. His habitual dependence upon his drug must be supplanted by independence and self-reliance. No drug-patient can be considered cured so long as he takes a tonic or drug of any kind. He must not only be freed from the drug to which he was addicted and all substitutes for it, but also from all tonic or other remedies used in his treatment upon which he might place even a mental reliance. He must be developed to such a state of mental, moral and physical health as not only to have no desire for drugs or stimulants, but not to feel the need of them.

The Importance of Physical Training

A well-directed course of physical training is one of the most effective means of insuring permanency of cure. The long-continued use of either drugs or alcohol brings about a state of profound anemia.

When a patient is freed from the thraldom of these poisonous agents by a proper course of treatment, his appetite and powers of digestion soon become vigorous, and flesh is taken on at a rapid rate. If left to itself this rapidly acquired flesh becomes an encumbrance rather than a resource. The patient becomes sluggish, tires easily on exertion, and complains of intolerable weakness. He should not be allowed to get into this condition. By a well-regulated course of physical training, begun as soon as the active therapeutic measures are completed, every pound of the newly acquired flesh, as well as much of the flabby tissue the patient already has, can be converted into stout, firm muscular fiber. In this manner a fund of reserve physical force may be developed, which will enable the erstwhile nervous, anemic wreck to stand the strain of his ordinary vocation without feeling the need of stimulation, and this will fortify him against relapse in the most effective manner.

The course of physical training should be continued several months after the patient's return home, and the standard of health kept up to the highest possible degree.

The Original Cause Must Be Removed

It is essential to permanency of cure that the cause which originally led to the addiction be removed. If this was a chronic painful ailment which still exists, then it is useless to treat the addiction unless this chronic painful ailment can be overcome at the same time.

If the addiction was taken up inadvertently, as in case of a physician using a drug to prolong his working hours, he must have become so impressed with the gravity of his error as to lead him entirely to renounce such a course in the future and to give up the use of all stimulants. There can be no compromise.

The use of alcoholic stimulants even of the mildest kind will inevitably lead to a resumption of the narcotic. Many authorities still advise the use of alcoholic stimulation in the after-treatment of these cases, but no more fatal error was ever made. No man who has been addicted to the use of morphine can use alcoholic stimulants in moderation. If he uses them at all he will go to excess and this excess leads to his sobering up by returning to the use of the opiate. If he would continue to be free from slavery he must give up stimulants of all kinds and live a sober and discreet life.

The almost universal failure to cure permanently drug-habitués by the methods of treatment heretofore in vogue is fully accounted for when we consider the matter from a dispassionate and impartial point of view.

Classing the condition as one having no pathology, as a mere appetite, a vice, removed all basis for rational therapeutic endeavor. Regarding the patient as a fiend, a pervert, one devoid of principle and laudable purpose, placed such a barrier between him and his physician that no common ground could be found upon which to establish the confidential relation which was essential to success. Failure to recognize the wide-spread functional derangements present as pathological factors to be met by therapeutic measures misled the physician into the error that the withdrawal of the drug was all that was necessary to constitute a cure.

In endeavoring to carry out even this mistaken idea of treatment, the gradual reduction method was usually adopted. This was simply a torturing process by which the patient was starved off of the drug, leaving him in a far more wretched condition than before the beginning of treatment. During this long drawn-out siege of suffering the patient's mind dwelt almost constantly upon the drug and he longed for the relief which it alone could give him. This one thought occupied his mind to the exclusion of everything else. The urgent demand for the drug to relieve the intense suffering due to the toxic condition of the system was so great that the patient could think of nothing else.

The Explanation of Morphinomania

This intense physical and mental strain converted the patient from a mere drug-user, a morphinist, into a morphinomaniac. The morphinist continues to use the drug because his physical condition demands it, and he will rarely return to its use if that physical demand is overcome. On the other hand, the morphinomaniac is controlled by his mental condition rather than his physical. No matter how perfectly he may be freed from all physical necessity for the drug, if the mania is not corrected he will resume its use as soon as he is given his liberty. He must be cured mentally as well as physically, but instead of the gradual reduction method of treatment doing that, it is the most effective means for perpetuating the mania that the ingenuity of man could have devised.

There is no question but that the employment of the reduction method of treatment has done many, many times more to render these helpless victims incurable than it has done toward curing them. The failures necessarily growing out of the employment of this unnatural and unscientific procedure has done more to damage the cause of the drug-users with the profession and the public than all other influences combined. It has done much to create the impression that

these victims are hopelessly incurable, that they have no desire to be cured and would not remain well if cured.

This process not only failed to correct the physical derangements present, but impaired the mind to such a degree that the patient no longer acted from reason but was dominated by a mania which always led him in the wrong direction. Notwithstanding the fact that he was not cured, either mentally or physically, he was nevertheless expected to stand on his feet and be a man. Because of his inability to do this, he has been stigmatized as a fiend, a pervert, one wholly given over to a vicious appetite. This verdict is as unreasonable as it is cruel and unjust. One should not be thus condemned until he has been given a reasonable chance, he should not be expected to remain well until he has really been cured.

Notwithstanding the failures of the past, these victims can be restored. They can be cured, provided the process of cure is a rational one, one which will effectively correct the physical disorders present without creating a mania to be left in their stead. When these patients are really cured, physically and mentally, when they are given a fair chance, a large percent of them remain well.

Two Chinese "Cut Throats"

A Medical Missionary Tells of Surgical Work Done Under Difficulties

By ELLIOTT I. OSGOOD, M. D., Chuchow, China

THIS last autumn a young man was brought into the Chuchow Christian Hospital with his trachea nearly cut in two between the second and third cartilages. He had become despondent over a family quarrel and attempted suicide. His mind was unbalanced as well, hence the attempt. A Chinese doctor had tried to sew up the wound with silk thread. The act had been done three days before I saw him. He showed little fever, slight loss of blood (no important vessels had been severed), and had very little interest in life. What interest he felt was distorted. His pulse was rather weak. Breathing was through the wound, although he could make himself understood by use of the vocal cords.

A Valuable Hypnotic

We have for some time been experimenting with a hypnotic preparation consisting of hyoscine hydrobromide, gr. 1-100; morphine hydrobromide, gr. 1-4; cactin, gr. 1-67. We have used it in a number of cases with marked success. We have found it never-failing and most amazing in its hypnotic action, closely resembling the spell under which a hypnotist places his subject.

One tablet injected hypodermically produces a quiet, profound sleep. Suggestions of sleep are valuable in hastening it. Cotton placed in the ears to shut out noise and covering placed over the eyes to shut out light aids in keeping the patient under the drug's influence. In severe operations one tablet should be injected about two hours previous to and another within an hour of the time for operation. The patient remains under the effects of the drug some hours. If by reason of apparent pain or other disturbing feature the patient shows a tendency to awake, a sleep suggestion and the stopping of the operation for a moment will send him back to slumberland.

The After-Care of Patient No. 1

We used but one tablet upon the patient just spoken of. Owing to the locality, irrigation was a difficult thing, so we removed the pus and dirt by repeated sponging with a bichloride solution.

A number of times the patient half opened his eyes or moved his arms as though to object to the work. A short stop and he would drift off into sleep. We finished the cleansing and sewed up the wound.

The patient slept for some hours and awoke refreshed and without pain.

His mental condition caused him to work at the dressings until he half reopened the wound. This was two or three days later. He ate very little and showed no mental improvement. His uncle, who attended him, feared he might drop off at any moment and so hurried him back home. We had not much hope for the patient under such conditions, but greatly to our surprise word came a month later that he was nearly well, both mentally and physically, with only a little leakage at the point of the wound.

Throat Cut By a Chinese Highwayman

Our second case of "cut throat" was the result of falling into the hands of highwaymen. The victim was on his road home for Chinese New Year. He had risen at daylight and started along his way. About a mile from the town he was attacked, robbed and his money stolen. He lay for a half day before being picked up. Much blood was lost in this case. His saviors used tobacco and other like material to staunch the flow of blood.

He was brought to our hospital three days later with a very foul wound. He had been unable to eat food and was in a very weak condition. I was away and my chief assistant did his best to cleanse and close the wound. He began rectal feeding and succeeded beyond expectation, having never had such a case before.

When I arrived home, the stitches were pulling apart, and in spite of repeated irrigations the wound showed a bad condition of sepsis. The assistant had done his work with chloroform. Remembering the former case, I used the H-M-C compound again. One tablet was sufficient for two hours' work on his throat.

I found the wound was above the glottis and below the epiglottis. The right larger cornu of the hyoid bone had been severed by the knife. I removed the lower end and cut off the projecting upper stump. The back of the pharynx was injured and septic. The cricoid cartilage had been completely severed. This with the severed cornu of the hyoid bone allowed the trachea to drag, by its own weight downward, exposing the upper end of the esophagus. When the man would attempt to swallow, the food or liquid would run out through the wound or over the vocal cords, causing coughing and strangling.

A Struggle with a Septic Wound

The problem was to remove the septic material and anchor the trachea to the hyoid bone and lower roots of the tongue so that the epiglottis could again fulfil its mission in directing food and drink into the esophagus. The wound on the rear wall of the pharynx showed divided tendons oozing septic discharges. The esophagus and the trachea, the nasal cavity and the mouth were all acting as storehouses for pus-bacteria.

We worked for two hours, cleansing, curetting and stitching. The patient slept on peacefully, once in a while drowsily objecting, but always falling off into sleep after a moment's interruption.

The next day when we changed the dressings he spoke with an almost natural voice. But it was apparent that unless healing was very rapid the pockets of secreted bacteria in the esophagus and postnasal cavity would win out, and so it proved. The man slowly weakened until two weeks after his injury, when he died. Gangrene (dry) had already set in over the upper trachea before he passed away.

These two cases were exceedingly interesting to us.

Uses for the Hypnotic

The new hypnotic was a revelation. We have found something that can be used in many cases where we dislike to use ether and chloroform. It can be used to begin the anesthesia, and later these other hypnotics may be added if desired. Only a few whiffs now and then are needed to keep the patient in a condition of profound slumber. In obstetrics it is especially valuable, as we have found from experience. There an anesthetic is needed to cover a considerable space of time. The H-M-C compound acts

well and does not retard labor. The only caution that is given, is not to use it in advanced kidney lesion.

The wound high above the glottis in the second case was peculiar. How to cleanse such a wound and how to anchor the trachea so that healing may take place were the puzzling questions which confronted us but failed to overcome. In another case we may succeed—if we ever encounter one.

Cancer of the Mammary Gland

A Rare Form of Secondary Growths

By HENEAGE GIBBES, M. D., C.M., L. R. C. P., Detroit, Michigan

ON a Sunday, some three years ago, I was called up by telephone and asked if I would examine a lady. I was informed that the doctor who had been treating her had been discharged and at present she had no medical attendant. The lady was brought to my office that afternoon, and after a careful examination I was unable to find any trace of tuberculosis, the disease with which she was supposed to be afflicted. The history of the case was as follows:

Some three months ago the woman had come under the care of the doctor who had just been discharged. His diagnosis was tuberculosis, and he called in consultation one of the older men who was considered an authority, and the latter confirmed the diagnosis and advised putting the patient in a tent, which was done at once, and she had been living in this tent the past three months. She had now become very tired of this life and told the doctor so. He then thought fit to inform her what her condition was, that she had tuberculosis. This nearly frightened her to death, as she was a fragile, delicate little woman; still she had courage enough left to discharge this doctor.

No Tubercle Bacilli Found

After an initial examination I was requested to take charge of the case. I had her removed from the tent, to her great delight. I then made a careful examination of the sputum and found no tubercle bacilli, but there were groups of microorganisms from the nasal passages some of which were new to me. These were nonpathogenic when inoculated into guinea-pigs. There were also large numbers of pneumococci.

Her condition now was fairly good. She had no cough at any time, and the only thing she complained of was a pain in the back, which at first I thought to be pleurodynia, but it failed to yield to any treatment, and was almost constant. She described it as a shooting, lancinating pain, and on close questioning I found that she had first noticed it when in the tent and had mentioned it to the doctor then in attendance, the latter saying it was of no consequence. On further questioning I learned that she had found a small tumor in the left breast, which she had shown the doctor, but now it had disappeared.

A careful examination of the patient's breast revealed a small tumor about the size of a small hazelnut. I advised immediate operation and called in one of the leading gynecologists in the city, who fully agreed with me, and it was arranged that the operation should be performed in about five weeks, when she would have gained strength after her sojourn in the tent.

An entirely new feature was now introduced into the case, and a thorough examination showed the condition of things as follows:

There was persistent pain in the back, ranging from the lowest dorsal to the seventh cervical vertebra. This pain was not confined to any one spot and there were no painful points. The lungs were perfectly free from râles or dulness on percussion, but the left lung had a peculiar coarse sound

and expiration was prolonged. I noticed some dyspnea, but this was easily remedied by 1-24 grain of heroin hydrochloride, which I had found to stimulate the respiratory center in the medulla. When it was decided to postpone the operation a few weeks, the husband requested me to try my inunction treatment, with which I had previously been successful in removing cancerous growths. This I did, and with the result that in about four weeks the tumor could scarcely be felt. I was sure, however, that there were secondary growths somewhere, although I could find no enlargement or hardness either in the pectoral or axillary glands.

Severe Symptoms Develop

The condition now was an increasing dyspnea and constant pain in the back. I found that, with the patient lying flat on her back and inflating the lungs to their fullest extent, I could not hear the heart-sounds, but as the air gradually left the lungs the heart-sounds came back, as it were, and I could hear them plainly. This showed that there was some solid substance capable of carrying the heart-sounds and that it lay behind the lung, as with the lung full of air these sounds were not conveyed to the ear. I next employed Litten's diaphragm-shadow test and found that the left side of the diaphragm was paralyzed.

I was somewhat puzzled as to what to make of the condition until I remembered the internal mammary lymph-channel, which was formally denied by Sappey, but was observed by Mascagni, and later by Styles, Simmington and others. By this channel cells from the primary growth had passed into the mediastinum, and growing there had involved the left phrenic nerve, producing paralysis of that side of the diaphragm.

The dyspnea steadily increased and the heroin did not keep it in check; so I resorted to the H-M-C, one-half strength, which acted splendidly; after a time, however, I had to use the full-strength preparation. The action of the H-M-C combination was peculiar. It produced, at first, a quiet, refreshing sleep, lasting several hours, when after awaking the dyspnea was completely gone for some time. Then the difficulty gradually commenced again and continued to increase until it became necessary to give another injection. Still, the intervals were of considerable length and enabled the patient to take nourishment and to enjoy it. I think the sedative action of this combination makes it very valuable in cases where a delicate person is becoming worn out with pain.

I do not quite understand the action of the cactin; I never had any faith in it until I used it in this combination. That it has some peculiar effect on the two other ingredients I have proved to my satisfaction, as using the two other ingredients singly and together I could not get the effect produced by the combination of the three combined. Since my experience with this case, H-M-C, modified, has been brought out, and it is simply invaluable, as you can use it in cases where you would hesitate to use the stronger preparation. It produces a calm, refreshing sleep, and its action is almost instantaneous.

This case progressed slowly to the end, no cure being possible; the only thing that could be done, after the pathologic condition had been thoroughly worked out, was to ameliorate the symptoms and relieve pain. In doing this H-M-C was invaluable. I found that I got a better result by combining a small dose of the heroin hydrochloride with the full-strength H-M-C than by giving the H-M-C alone more frequently. It controlled the dyspnea better, which was her greatest trouble, and it also acted as a sedative on the stomach, and enabled the patient to retain food. She had broth made with various meats, her mother cooking the whole in a Mason jar, thus retaining all that was nutritious—a form of nutriment I consider far superior to any of the artificial foods. In this way the case went slowly on, the dyspnea increasing in spite of every treatment tried.

At this time the husband and friends expressed a wish to have another man in consultation, something I had suggested some time before. I met the consulting doctor at 10 o'clock in the evening. The

latter found fault with everything that had been done and made a statement that rather surprised me. He said there was no difference in the action of the salts of opium, that their action was precisely alike. At any rate, the next morning I was informed that my services were no longer required as this doctor had taken charge of the case. In the course of the morning I heard that he had entirely altered my treatment, and in less than one hour from doing so the patient was dead.

This was a most interesting case and a very sad one. The progress was so slow, but the dyspnea increased steadily. At first it was checked by the heroin with comparative ease, but gradually the intervals of attack became shorter until the more powerful drugs had to be used. But after a time their influence also waned.

The diagnosis of this interesting case was a difficult one, especially as the ease and simplicity with which the primary tumor disappeared made it doubtful whether it was carcinoma, while the entire absence of cough put the position of the secondary growth in question. The diagnosis once made the end could, of course, be predicted.

Mechanism and Management of Shock

What It Is, What Causes It, Its Symptoms, and How Best to Treat It

By IRA N. BRAINERD, M. D., Alma, Michigan

DA COSTA'S definition of shock seems to me to be about perfect. It is as follows:

"Shock is a sudden depression of the vital powers arising from an injury or a profound emotion acting on the nerve-centers and inducing exhaustion or inhibition of the vasomotor mechanism." He goes on to explain that "by overstimulation of sensory nerves the vasomotor center is exhausted or inhibited, vasoconstrictor power is lost, the arteries and capillaries are depleted or nearly emptied of blood, and the blood is largely transferred to the veins. The blood pressure is lowered, the cardiac action is impaired, the respiratory action is impeded, and quantities of dark-colored blood gather in the somatic veins, but especially in the veins of the splanchnic area. In shock the abdominal veins are greatly distended and the other veins of the body may be overful; the arteries contain less blood than normal, and an insufficient amount of blood is sent to the heart and to the vital centers in the brain. In other words, in shock there is a deficiency in the circulating blood. . . . . Shock may be light and transient, or it may be severe and prolonged, and it may even produce almost instant death. . . . . Shock is more severe in women than in men, and in the nervous and sanguine than in the lymphatic, in those weakened by suffering than in those who are strangers to illness."

Fowler's definition is also good: "This term [shock] is used to designate an extreme functional depression first of the nervous system, and, second, in consequence of the first, of the circulatory system, resulting from an injury or occurring as one of the effects of an operation."

We may distinguish two kinds of shock, if we wish, namely, heart-shock and blood-vessel shock. In the former the heart loses tone, and fails to empty itself. In the latter the veins lose tone and stretch wide open and fill up with blood.

Is There a Distinction Between Shock and Collapse

Some writers make no distinction between shock and collapse. I myself think it is best to neglect this distinction; still, "if one is to distinguish between shock and collapse, he should reserve the former term for cases which follow injury or accident, and the latter for cases originating spontaneously or from mental or intrinsic causes and connected with physical violence." (Park.)

The general syndrome of the symptoms of shock is splendidly set forth in the "American System of Surgery."

Collectively they may be said to resemble the symptoms of impending death. The most important symptom is the condition of the nervous system; and the second most important symptom is the condition of the circulatory system. Objectively "the excessive weakness of the heart's action is the predominating feature in shock" (Fowler); but as the prostrated nervous system must always stand in a causative relation to the prostrated circulatory system, therefore the nervous symptoms must stand first in importance. The blood pressure rapidly falls from the normal of about 110 mm. (mercury column) in the brachial artery to 40 or to 20 mm. The pulse becomes rapid or running and feeble and irregular both in force and in rhythm. The respirations become shallow and slow. The pupils become somewhat dilated and respond but feebly to light and shade. The body is soon covered with a cold and clammy perspiration. The body-temperature falls because the circulation, and consequently oxidation, are so much impaired. The mind is less active, or the patient may be unconscious. All of these symptoms may be so profound as to make the patient's condition hopeless.

Physiology of the Phenomena

The physiology which explains these phenomena is this: All peripheral impressions travel toward the center; and as these stimuli travel through the centers in the cord and brain they overwhelm them more or less completely, as witness the effect of a blinding flash of light. This temporary paresis or permanent paralysis of these nerve-centers results in a suspension or arrest of those processes which are dependent upon those centers. For example, the painful stimulus arising from a pounded thumb, or a kicked testicle, or a "blow below the belt," may so inhibit the action of the cardiac center that the patient will faint away. This arrest of action may be so complete as to end in death.

Emotional causes may produce shock. For example, many people will faint away upon seeing blood or witnessing a surgical operation. This kind of shock is of short duration and usually recovery is complete. The "International Encyclopædia of Surgery," says on this point:

"There can be do doubt that mental emotions, especially joy or fear, of itself, without bodily hurt of any kind, may be followed by the gravest form of shock, resulting in immediate death even when there is no probability of organic disease of the heart.

How Mental Shock Killed a Man

"Many years ago the janitor of a college had rendered himself in some way obnoxious to the students and they determined to punish him. They accordingly prepared a block and axe, which they conveyed to a lonely place and, having dressed themselves in black, some of them prepared to act as judges and sent others of their company to bring him before them. When he saw the preparations that had been made, he at first affected to treat the whole thing as a joke, but was solemnly assured by the students that they meant it in real earnest. He was told to prepare for immediate death, for they were going to behead him then and there. The trembling janitor looked all around in the vain hope of seeing some indication that nothing was really meant, but stern looks everywhere met him, and one of the students proceeded to blindfold him. The poor man was made to kneel before the block, the executioner's axe was raised, but instead of the sharp edge a wet towel was brought smartly down on the back of the culprit's neck. This was all that the students meant to do, and, thinking that they had frightened the janitor sufficiently, they undid the bandage which covered his eyes. To their astonishment and horror they found that he was dead."

Advantage is sometimes taken of this physiological fact by knaves who wish to rape a girl. They first terrorize her until she cannot resist. Other crimes may be committed in similar ways. A dog chasing a rabbit seeks to shock him with terror by barking so that he cannot run.

The causes of physical shock are numerous and varied. Pain is a frequent cause. If one gets a leg crushed under a car-wheel, or if he be gored by a bull, or if he receives a gunshot wound, the pain will usually cause shock. In very susceptible people even the bruising of a finger may cause some degree of shock. Pain endured before an operation lessens resistance and increases shock. Loss of blood is a prolific cause of shock. By "loss of blood" I here mean an external or internal escape of blood from the blood-vessels—not a stasis of blood in the large venous trunks. That phase of the subject has already been discussed. Injuries to the brain and to the nerve-trunks produce a greater degree of shock than wounds of other tissues. Injuries of the skin as in burns and laceration of muscle-tissue may cause shock. Wounds through the bellies of muscles produce more shock than wounds through their tendonous ends. Contused and lacerated wounds are worse than clean-cut wounds. Wounds of the periosteum are more painful than those of the bone.

Age is an important factor in the occurrence of shock. Infants and old people do not endure shock well. In youth and in young adult life it is best borne; the constructive forces here are in excess. Shock is not so well borne in those periods when the nerve-forces predominate over the constructive forces.

"When nerve-force is predominant, shock also becomes predominant. . . . . In persons of a very timid character or of great nervous suceptibility, those who are liable to the occurrence of syncope, more especially females and children, a very trivial injury may produce an extreme degree of shock to the nervous system; indeed the mere apprehension of an injury may, without the occurrence of any physical lesion, give rise to all the phenomena of shock in its most intense degree. People have been actually frightened to death without any injury having been inflicted upon them. The state of mind at the time of the receipt of the injury, influences materially its effects upon the nervous system. If the patient be anxiously watching for the infliction of a wound, as waiting for the first incision in a surgical operation, all the attention is concentrated upon the coming pain: it is severely felt, and the consequent shock to the system is immensely great. If, on the other hand, the attention be diverted—if, as in the hour of battle, the feelings be roused to the highest pitch and the mind is in a state of intense excitement—a severe injury may be inflicted and the patient may be entirely unconscious of it, feeling no pain, and experiencing no shock, perhaps not knowing that he is wounded until he sees his own blood." (Erickson.)

Treatment of Shock

The treatment of shock is simple and mostly passive. Be careful to do nothing which can add to the existing shock. In moving a patient be gentle with him. Do not permit a broken bone to gouge into the flesh and nerves and blood-vessels needlessly. Keep him quiet on his back with head low. Apply artificial heat. Give morphine hypodermically for the relief of pain and to quiet the mental agitation. The hyoscine-morphine combination is best for this purpose. Give strychnine (1-20 grain) to revive the heart action. Give hypodermic or intravenous injections of saline solution to fill up the blood-vessels. Atropine and ergotol will contract the smaller blood-vessels. Adrenalin chloride will raise the blood pressure.

"In a patient suffering from shock as the result of injury none but the most imperatively demanded operations, such, for instance, as that required for the arrest of hemorrhage or for the relief of some condition on which the continuance of the shock depends, should be undertaken." (Fowler.)

Park makes the point that sometimes an operation will relieve shock, as when sharp fragments of bone are gouging the flesh or nerve-trunks, and in depressed fractures of the skull.

"Stimulation of sensory nerve-trunks or sensory surfaces (skin, parietal peritoneum, periosteum) in an animal in a condition of shock leads to a further fall of pressure and to this extent augments the condition of shock." ("American Practice of Surgery.")

The prognosis in shock is generally favorable. Nevertheless, the patient may die in a few seconds, or he may do well for hours or days and then die suddenly. These sudden deaths in patients who seemed to be recovering from shock are most frequently due to fat embolism. The capillaries drink in enough liquid fat to cause an embolus in some vital part. The patient will be "seized with symptoms of some great disturbance and die in a few hours or days. ("American Encyclopædia of Surgery.")

"If delirium arises the condition is very grave. . . . . After careful observation of fifty cases [of shock] during the siege of Paris, Reddard declared that a fall of temperature is a constant phenomenon. Every wounded man brought to the field hospital presenting a temperature lower than 96 degrees will succumb and consequently it is useless in such cases to resort to operation. Every wounded man in whom a salutary reaction does not come on by the end of the fourth hour, and in whom the reaction is not in indirect proportion to the fall of temperature previously ought to be considered as in a very serious state." ("Dennis' System of Surgery.")

The Abortion Problem—The Sociologic Side

By G. M. HAWKINS, M. D., Seattle, Washington

EDITORIAL NOTE.—There has been a good deal of discussion of the papers on Abortion which appeared in our April number. It was our intention to close the subject with that issue, but so many have asked to be heard that we admit several more articles this month, the most important one being this by Dr. Hawkins. Instead of editorial comment, the other papers follow. This definitely closes the discussion.

IN the April number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE Dr. Johnson begins his article upon abortion with the intimation that he is going to discuss the question in a manner conforming with our best knowledge upon the subject, and he ends after writing sixteen columns of a very old-fashioned defense of the abortionist and his trade and a very sentimental characterization of woman.

I fully agree with the doctor in his second sentence that the abortion-question is being handled in a very routine and superficial manner, and the reason is because the abortion-question is torn from its natural relations by its dissectors and discussed as an unrelated whole, when in reality it is only a part. We diagnose diseases by their symptoms, the latter being but signs to be picked up and analyzed by the investigator and followed from one to another until we finally find the cause of the evil and are enabled to eradicate it.

In the complex life of today society presents many symptoms of ill-adjustment; signs that somewhere in the body politic reside frictions that are in need of change. Such, and only such, is the desire to pluck the unripe fruit of the uterus that is springing more and more in human minds.

The Increase of Abortion a Social Problem

This desire is a social problem, and all social problems resolve themselves into economic problems. "In every historical epoch the prevailing mode of economic production and exchange, and the social organization necessarily following, form the basis upon which is built up and from which alone can be explained the political and intellectual history of that epoch."

That truism has never been more applicable than it is now. It is a law that no investigator of human conditions can afford to ignore, for it is the open sesame to many otherwise closed doors. Therefore, in this search for the dragon in his labyrinth, let us bring this sleuth to our aid. The attraction of one sex for the other dates from the first step in the biologic scale when the asex-

ual organism became differentiated into two organisms, each with a sexual element opposite to the other; and across and adown the ages the interplay between these two has made the biologic progression a certainty.

In this division of function lies the germ of our wonderful present-day society: grown out of all proportion to its former self, its direct lineage can still be traced. Then the female was not a passive individual of putty, sexually, and neither is she today except upon the surface and because of an untoward environment that has made it more profitable for her to subjugate her real nature to make way for the standard of conduct set for her by man.

The Female of Lower Animals Plays no Passive Role

The laws set in operation when our sphere began still operate and they operate the same throughout all the ramifications of life and structure. A study of the sex-activities of animals below the human scale (up or down, as you prefer), to aboriginal man himself, reveals the fact that the female does not play a passive role, but is as much interested in the process and shows as much activity as does the male. It is only when we reach the stage of civilized man that woman is accredited with only a passive interest in things sexual.

This idea has had a long cultivation, and dates from the acquisition of private property and the appropriation by man of almost all of woman's functions in society except one, the reproducing and rearing of the human young. It was impossible for man to take this away from her, and it is a keen irony for him after he has left to her the serious business of race reproduction to attribute to her only a passive attitude toward her only specialty.

What of the Maternal Instinct?

Our conventional moralist will immediately tell us that what active part woman does take in this affair is merely her maternal instinct. That is another ill-advised conclusion of man, for women have spoken upon this matter—brilliant feminine investigators, and they have spoken to contradict.

The means to ends are always the proximal consideration and more important than the ends themselves until they are accomplished, for without their attainment the end-result will be negative. Natural law has taken that feature well into account, and has seen to it that by making the means imperative her ultimate ends are not lost.

We arrive at ideas through the medium of our senses. What then does a virgin woman know of the maternal instinct? And why is she attributed with it? Is it because she is fond of children? But many are not fond of them before they have children of their own. Is it because she is taught to play with dolls and imitate manners and dress of grown women during her childhood? A boy reared the same would be no different.

There is not one well-founded fact to prove that woman's sexual nature is simply a maternal instinct; that is, only a desire to have a child. She can *really know* nothing of it because she has never experienced it, but she does experience ovarian irritation, that bewildering longing that teases her intensely at times; and she does crave physical gratification of natural appetites and is satisfied only when she receives it. That accomplished and pregnancy resulting, then under fortunate conditions the maternal sense comes into her life, and the boundless horizon of the young prospective mother lengthens before her adown the years, with her offspring her tenderest care and adoration.

When the Conditions Are Unfortunate

But under unfortunate conditions? Oh, that is the crux of our discussion.

All normal women take an active interest in matters sexual. All normal pregnant women under propitious circumstances desire th offspring. It is the one great and importai point in the differentiation of sexes and th most necessary impulse in biology. Therefore, when we see this imperative function turned back upon itself and the individual wildly desirous of frustrating the very purpose for which she exists, we must look for the cause of her situation in the conditions that surround her. The human race has

been very slow to learn the circumstances that mold its course. In ancient times they were attributed to an Allwise Being; we today know that they exist within the workings of our own society and can be influenced by intelligent action. The history of civilization is the history of conflicting classes, the exploiters and the exploited. These classes have existed since written records began. The exploiting-ones in all ages have reveled in the wealth of their eras. The exploited have always existed under trying, ofttimes cruel circumstances. Such is the condition today.

Abortion Most Common Among the Wage-Class

Does it ever occur to the advocates of induced abortion that the great majority of abortions occur among the women of the wage class? Does it ever occur to them to connect this crime against biologic law committed by the women of the wage class with the small amount of wealth that falls to their share out of the results of the world's activity? It seems not, but it nevertheless is the prime reason for this degenerating movement, as all who have taken the time to study conditions have found out. For be it the girl of the shops, of the telephone office, the mills and factories, who out of wedlock, because of the inability of young men to support her in wedlock, gratifies her natural propensities and later finds that society has no place for the perpetuators of the race unless they act according to the conventional rules laid down; or whether it is the sexually exhausted wife, living a life of drudgery, or the young matron of somewhat easier circumstances, yet whose husband's income only suffices to keep them in their position, it is the same demon that always pursues, the demon of insufficient funds properly to bear and rear the children.

Let us not sentimentalize over woman's weakness as an excuse for doing abortion. The scarecrow of man's brutal passions, taking advantage of poor woman as the cause of ill-timed pregnancies, has been relegated to the musty shelves of exploded ideas. Why should there be ill-timed pregnancies if we were properly organized upon the industrial field and properly educated upon the intellectual domain? Woman, bound by the customs and ideas that have treated her as an undeveloped mentality and have kept her in ignorance, has nevertheless always kept close to the great laws that work within her.

Some, it is true, have learned centuries' old man-taught lessons and have finally convinced themselves that they are ascetic, passive creatures, to do as they are told, and if not told, not to do at all. But more and more of the feminine sex are taking matters into their own hands and are endeavoring to live their lives as they see fit, only to be confronted with the terrible nightmare of life-sapping social conditions. The Hedda Geblers are found in the haunts of the well-to-do; the real tragedies are in the homes of the poor.

The Abortion Problem Solved When the Economic One Is

Just so long as the process of producing the world's wealth is carried on by an exploited majority who receive for their labor a bare subsistence-wage; just so long as woman is kept in ignorance concerning the laws of her body and is prevented from using that body according to her own desires, nor has at her command the necessary safeguards to herself, her offspring and society; just so long as she is economically dependent upon man, and her offspring's subsequent economic careers are an uncertainty, just so long will the abortion-question be prominent in modern life.

The fanciful story of weak, passive woman being taken advantage of by burly, brutish man is the abortionist's justification of his own act and except in rare instances is a fiction of the imagination. With few exceptions woman is an equally active partner with man in cohabitation. No one can say she is wronged; she is carrying out important impulses developed by evolutionary forces.

It is indeed time that the medical profession made a serious and thorough study of the economic conditions that surround the

majority of the people it is called upon to attend in sickness and death, especially the circumstances associated with that sex, which furnishes us the theme for present argument. It is the only way a scientific concept of an individual's social status can be obtained. Mankind is prone to worship the established; it is taken for granted that whatever is, is right, and if anything different is to be done, it desires it to be as little unusual as possible.

It is reasonable that the treatment of irresistible abortion should be surgical. The treatment originated long ago, when such measures were only used therapeutically and as indicated procedures, and as such are necessary today. But to degrade such a therapeutic procedure into an everyday slaughter of nature's attempt at the perpetuation of humanity does not speak well for our boasted civilization. As a remedy for the widespread unrest of modern prospective mothers it is an absolute failure, aiming at no definite racial result except degradation; and as a makeshift it must fall under the indictment of being less effective and more harmful than other measures.

Another argument of the abortionist is that abortion, by preventing illegitimate births, acts as a check to the production of criminals. This opens up another wide and important subject which cannot be discussed here. Suffice it to say that the argument has no merit; the long line of illustrious illegitimates and the testimony of supervisors of foundlings' homes quite effectually refutes any such logic.

To a casual observer it may seem a far cry from a shady surgical operation to a social revolution. But it is not; the two are closely related; the great demand for the former denotes the absolute necessity of the latter, and foreshadows its approach. Mankind learns by its experiences to avoid and make impossible those things which make for its downfall, and to nurture and build up those that work for his eternal happiness.

We are just now at a transition period when the old order is beginning to crumble. Society itself is undergoing birth pangs. During that ordeal many individuals must suffer and go down, but if from out the travail comes a new order of greater beneficence to man and woman it will not be in vain.

It is our province as physicians—nay, our duty, by reason of our social function—to exert our influence in the most effective and progressive way, e. g., in scientific study and popular education of things essential to bring about the new social order, where the gods of profit have been overthrown and woman and man have been liberated from the bonds of ignorance and exploitation and race culture is set as the goal for our mental activities.

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[There are several features of Dr. Hawkin's paper which we should like to discuss, such as his claim that abortion is most common among the wage-earning class—which we doubt; but as the matter has already received discussion enough, and has now been presented from nearly every angle, we desist. Following we print a number of short comments coming from other readers.—Ed.]

First, I must agree with you that there are a few cases that should be interfered with, such as extrauterine pregnancy and certain cases of rape. I must say right here that I believe that a man who will allow a mother to go on to term when he knows it will be a physical impossibility for pregnancy to terminate normally, or in other words, where the prospective mother is almost sure to lose her life, has wilfully and maliciously committed a murder.

Just when a case of this kind presents itself should be decided by the careful consideration of not less than three reputable physicians, and I think the law in our state grants this privilege.

Now about this rape business. Taking Dr. Johnson's view of what the words "by force" mean, there is not a case of illegal impregnation that is not a rape-case.

I want to say just what I think about this mother, and if you fellows come at me too hard, I may keep my mouth shut. I believe that the poor woman needs all the sympathy

and protection the divine laws will give her, and those stretched to the limit; and also I believe that our laws should be so amended that they would deal most severely with the devilish brute that used his moral or physical force to rape her. You say we must protect society. Who is society—this innocent girl or this brute? It must be the brute or his kind, because when a case as understood above occurs, the girl is cast aside and the finger of shame is pointed at her, while the brute takes another step up in society.

You ask, "What has this to do with criminal abortion?" I answer it has more to do to cause it than anything, because this girl is left to herself and must do something, and if her physician won't she will herself—so there you are. Remove the cause by putting a penalty on these brutes that will cause them not to be so free with their moral or physical force. Our laws are having a very good influence on the physical force. Now let Miss Society do her duty to the moral force.

I believe in "clean out, clean up, and keep clean," and if I do not get a good cleaning up the first time, I try something else till I can have another cleaning. So I think in place of removing the scotches or restrictions we already have on this question, by giving more latitude to the physician, we had better go ahead with our cleaning process, and as we proceed, add more restrictions; and when we do, let's make them so strong they will be dreaded by both sexes.

Don't let a fellow think he can escape with a little monthly allowance—make it a prison sentence.

O. H. Hammett.

Paragould, Ark.

THE EVOLUTIONARY ASPECT

I have just read the articles in the April number on abortion. No wonder you differ so in your honest opinions. It can't well be otherwise in this age, because this is the time during which the transition is taking place from the theological interpretation to the materialistic interpretation of history. The latter is based on the doctrine of evolution, now well established among all scientific men; the former in the socalled orthodox view of the Bible.

I take the side of evolution. Dr. Johnson's ideas are in harmony with that philosophy. But since the definitions of life, of evil or good, etc., even of God, heaven, hell, etc., based on evolution, have not yet become popular in our lexicons and encyclopedias, and the masses, even many doctors, know but little of science, therefore these differences of opinion are but natural.

As the materialistic interpretation of history becomes established among the masses our laws will more and more reflect nature's laws, and we shall strike more effectual blows at the causes of all evil.

S. J. Brownson.

Arlington, Tex.

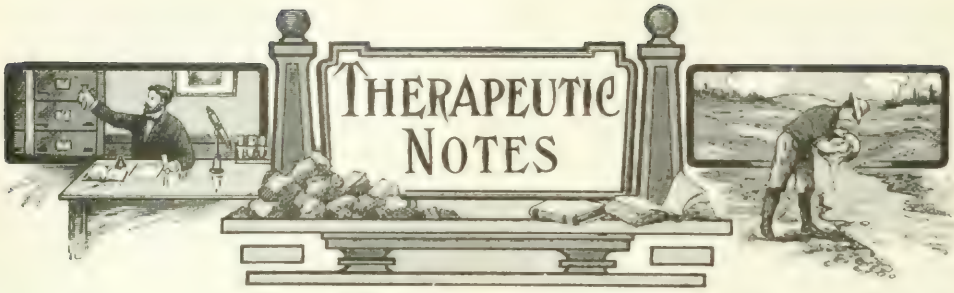
SHALL WE COMMIT ABORTION?

The whole question seems to hinge upon a truly moral and religious standpoint, and if the physician divests the case of these aspects, then argument is useless. We are told, "Thou shalt not kill." Therefore we have no alternative. It is very sad, it is true, that a young woman who has gone wrong cannot be relieved, and still more deplorable that she who has been viciously raped has to give birth to an infant perhaps of inferior type; but who would argue that if we see a man shot down, it is our duty to draw a weapon and kill the offender, or that it is our duty to go about destroying all offenders.

We cannot take the law in our hands. "Thou shalt do no murder"—and it certainly is not our business to kill the little fetus and take away its God-given life. There certainly can be but one or two exceptions, and these are: (1) when a mother and child would both die, owing to disease of the parent, or (2) when the mother's life is seriously at stake, where it is almost certain that she would die if not relieved of the fetus.

In these days of improved surgical means and increased knowledge in surgery and therapeutics we should very much hesitate to perform or induce abortion except for the gravest causes. J. G. B. Bulloch.

Washington, D. C.



FIBROLYSIN IN CHRONIC RHEUMATISM AND OTHER CONDITIONS

Arthur P. Luff (*The Lancet*, March 12, 1910) injects this substance into the deep subcutaneous tissues of the upper arm, each arm being injected alternately. There is no necessity to inject it at the site of the scar tissue. The injections should be under strict antiseptic precautions and when so done seldom cause more than a slight temporary local pain. It is necessary to give from thirty to forty injections in all, and they should be administered on alternate days.

After twenty injections have been given movements and massage of the affected fibrous tissues should be commenced, as it is at this stage that the affected tissues usually begin to soften and are then likely to stretch, if movement and massage are employed. It is essential that the injections of fibrolysin should be followed by massage and movements of the affected parts.

Dr. Luff has employed fibrolysin in several cases of thickening and contraction of fibrous tissues and associated with different forms of fibrositis and arthritis, and also in several cases of Dupuytren's contraction of the palmar fascia. In some of the cases no benefit resulted, but in the majority good results were obtained; while in several of the cases of stiffened and distorted joints the results were remarkably good, so that the joints which were previously almost useless had good movements restored. In the majority of the cases of Dupuytren's contraction the thickening of the fascia and the consequent deformities entirely disappeared. Roughly speaking, in about one-third of the cases fibrolysin failed, and in about two-thirds it was more or less successful. Luff is of the opinion that in properly selected cases fibrolysin is a very useful drug to employ, but it is essential that in cases of stiffened and distorted joints it should not be employed while any active mischief is proceeding within the joints. He is unable to offer any definite opinion as to the permanency of the good results in the successful cases.

REFRACTORY ARTHRITIS DEFORMANS

F. J. Walker contributes a brief but valuable report on osteoarthritis to *The Dietetic and Hygienic Gazette*. He says that perhaps the most constant symptom of this disease is the presence of gas and evidence of amylaceous indigestion in the small intestines, with the large ones containing the product of putrefaction. Testing for putrefactive alkaloids in the urine of these patients, these bodies were found without an exception. Tenderness over the liver and pain across the back, below the shoulder-blades, were common symptoms. These disturbances had usually been going on for years, the joint involvement developing insidiously, with quiescent periods and never responding to treatment, both medicinal, mechanical and balneary, because the intestinal trouble was overlooked or not successfully treated.

SNAKE BITE

Orndoff, in *The Medical Standard*, gives an apt illustration of the evils of regarding disease from the standpoint of pathology—dead pathology—alone. He dismisses systemic treatment with these words: "Strychnine and ammonia have also been recom-

mended for the apparent depression, following snake bite, but when we consider that we have probably to deal with a definite class of changes in the nerve-cells of a cytolytic nature, there is no rational basis for the administration of stimulants."

Strychnine is not now given because it is a "stimulant," but because this drug powerfully antagonizes the paralysis of the vasomotors in the splanchnic region. While this paralyzing action is but one of several effects of serpent venoms, it is an important element of all these, and through it the blood collects in the great abdominal vascular system, and the patient dies of cerebral anemia. This is antagonized by, and itself antagonizes, strychnine to such an extent that the latter has saved lives when given in doses sufficient to overcome this paralysis, even though these doses of strychnine largely exceed what would surely prove lethal were they not counteracted by the venom. Experience has proved that if this peril to life, here the most immediate, is thus averted, the patient has very often a chance of overcoming the other elements of the poison. In some serpent venoms this paralyzant action is the principal one presented and the others may be disregarded; in all it is one of the most dangerous elements. With this disposed of, the natural forces of the body are left free to cope with the other elements of the venom.

The next step should be the search for a remedy to stay the cytolytic action of the venom, and this should be sought by the application of suggested remedies to the living patient rather than in the study of the pathologic anatomy. Since arsenic is believed to render the red blood-corpuscle immune against the attacks of the malarial plasmodia, it may on this very questionable analogy be tried out in snake poisoning for want of a more probable suggestion.

THE QUESTION OF DOSAGE

The current circular of the N. A. R. D. says that dosage is the weakest part of the therapeutic armamentarium. "Doses are comparative. The average dose of potassium iodide is 7 1-2 grains, but in some conditions one grain will produce the exact results desired and in others it must be given in doses of 60 grains to produce curative effects."

We strongly suspect that the gentlemen of the N. A. R. D. have been studying alkaloidal literature. But why, oh why, should they think physicians need enlightenment on this point from the druggist? Is it possible that the physician is not qualified to enlighten the druggist on a matter so exclusively within the sphere of the doctor? The same circular inadvertently lets out a notable fact, namely, that spirit of nitrous ether has gradually fallen into disuse on account of the rapidity with which it deteriorates.

METRORRHAGIA CURED WITH ERGOT

Laura, in his writings, tells of a mother, aged 23, two days over her second labor, seized with chills, disquiet, palpitations, and free metrorrhagia, with profound prostration. She was given ergot in doses of 0.003 Gram every quarter hour until the hemorrhage was checked, then less frequently. The bleeding was checked within three hours and subsequently pursued the normal course. An abrasion of the uterine neck was found and cured. The anemia disappeared under iron arsenate.

TREATMENT FOR PINWORMS

The following treatment is recommended by W. Zinn (*Therap. Monatsh.*, Jan., 1910; through *Merck's Archives*, April, 1910) for pinworms; the doses named being those for adults: First day, fluid or semisolid diet; at 3 o'clock calomel and jalap, of each 7.5 grains; at 6 o'clock a soap enema, warm, one to two one-half quarts. Second day, fluid diet, with two to four buttered rolls, and in the morning one cup of black coffee. At 8, 10 and 12 o'clock a powder containing santonin, 5-6 grain, and calomel, 1 1-2 grains. At 2 o'clock one ounce of castor oil, to be repeated, if necessary, at 4 o'clock. Third day, fluid or soft solid diet. In the morning a warm bath. In the morning and afternoon an

enema of one to two one-half quarts of a 0.2- to 0.5-percent solution of soft soap. Fourth and fifth days, as above, with warm baths in the evening. Before meals and after stools the hands should be carefully disinfected. After the cure the linen and bed-sheets should be changed. The cure is best carried out in a hospital, where careful control is possible. Instead of soap, one of the anthelmintics such as extract of male fern may be used in in the enemas.

EPILEPSY SUCCESSFULLY TREATED

Descola treated an old priest for epilepsy, giving, before each meal, 2 milligrams quassin and 1 milligram strychnine arsenate; every hour in alternation, brucine, 1-2 milligram, and zinc phosphide, 1 milligram; during the paroxysms the valerianates. The diet and personal hygiene were carefully regulated. His stockings were powdered inside with mustard. For nineteen months after the cure he was free from attacks. —*La Dosimetrie.*

SODIUM CHLORIDE IN EPILEPSY

It has heretofore been considered that salt was contraindicated in epilepsy, but A. Ulrich has found that the symptoms of bromine poisoning rapidly subside when salt is given internally, the motor symptoms especially yielding at once to its action. Even the fetor from the mouth subsides under its unfluence. In his article on the subject (in the *Neurologisches Zentralblatt*, 1910, quoted by *The American Medical Journal*, April 2, 1910) he states that bromine-acne is also rapidly cured by local applications of a 10-percent salt solution. There seems to be no doubt, he says, that salt is the antidote to bromine.

Dr. Ulrich also reports that he was able to bring on an epileptic seizure in twelve cases of genuine, or Jacksonian, epilepsy by giving 20 or 30 Grams of sodium chloride a day for a few days for diagnostic and therapeutic purposes. In one of the three cases reported in detail the patient had had no severe seizure for several months and was in a condition of excitement bordering on mania. He administered 30 Grams of salt, whereupon the patient's mind became apparently normal. In another case the salt was given to disclose a possible epilepsy in a medicolegal case, and the findings were positive.

NUCLEIN IN PROGRESSIVE PARALYSIS

Dr. O. Fisher (*Prag. Med. Woch.*, 1909, No. 29) has obtained good results from subcutaneous injections of sodium nucleinate in progressive paralysis in doses sufficient to produce a marked mucous secretory reaction in the organism.

TREATMENT OF RENAL CALCULUS

Dr. John B. Talmage (*Merck's Archives* for April, 1910) says that for the chronic stage of renal calculus there are two medicines which are as good solvents, so called, as can be given, namely, piperazin, in the dosage of 15 to 20 grains, well dissolved in seltzer water, and drunk throughout the day; and hexamethylamine, 15 to 20 grains, taken in one daily dose in plenty of water. The latter drug, while not inhibiting the acid reaction of the urine, prevents ammoniacal fermentation and greatly increases the dissolving power of the urine for uric acid.

NUCLEIN IN MENTAL DISEASES

Prof. J. Lépine (*La Province Médicale*, Jan. 29, 1910) reports his results in 71 cases of mental diseases treated with nuclein. Among these 71 cases there were 17 of general paralysis. The author injected under the skin of the flank 50 cubic centimeters of a 1-percent solution of sodium nucleinate made with distilled water or with physiologic salt solution. Later on he used a smaller volume of a stronger solution, representing from 40 to 50 centigrams of the drug at one dose.

Lépine notes that injections of sodium nucleinate are followed by a rise of temperature to 102.2° and up to 104° F. The arterial pressure is increased to above normal. A hyperleukocytosis was produced up to a count of 50,000 white cells, this setting in

about four hours after the injection, after a preliminary stage of leukolysis in which one-third of the white cells sometimes disappeared. The hyperleukocytosis reaches its maximum at the thirtieth hour after injection, but persists for three to six days. It is always a polynucleosis. Of the 71 cases treated, a cure was obtained in 16, while 6 were much and 10 slightly improved. No results were obtained in 30 cases, in 6 the disease was aggravated, while 3 of the subjects died.

THE ACTION OF JALAPIN, COLOCYNTHIN AND ELATERIN

Castro experimented with jalapin, elaterin and colocynthin, concluding that they acted by inciting contractility of the bowel-muscles. Jalapin acted best on the small intestine, colocynthin on the large bowel, and elaterin on the stomach. It is better to add strychnine rather than to give larger doses.

VALERIANATE OF ATROPINE NOT A SIALOBLAPTIC

Atropine valerianate does not cause constriction and dryness of the throat, and consequently should replace other atropine salts and hyoscyamine as antispasmodics when this effect is manifested, according to Burggraeve. ("Sialoblaptic" is from *sialon*, saliva, and *blaptein*, to hinder, retard, or check, being the opposite of "sialogog.")

CACTUS GRANDIFLORUS IN HEART TROUBLES

Prof. Phil. H. Hommell (*Merck's Report*, May, 1910) writes: "A tincture and fluid extract of cactus grandiflorus are popular among physicians on account of their usefulness in functional heart troubles. The drug appears to contain active therapeutic principles and it should become official."

The suspicion that cactus grandiflorus does contain active therapeutic principles is indeed decidedly strong in the minds of a good many physicans who use it confidently in functional cardiac disturbances, preferably in the form of 'cactin' granules. It is important to note that by no means all portions of the plant possess the virtues of cactin, whatever they may be (the chemistry of the plant being imperfectly understood), and it must, also, be borne in mind that, as in the case of other drug-plants, atmospheric conditions and the season of picking are of importance. The drug is being investigated along various lines, and we hope that its constitution will soon be better known.

HYPODERMOCLYSIS IN ECLAMPSIA

A. Sippels (*Deut. Med. Woch.*, 1910, No. 1) says that the infusion of physiologic salt solution in eclampsia is dangerous when there is present a pathologic condition of the kidney, because then retention of considerable of the salt may occur.

ADRENALIN IN OLD PEOPLE

Dr. Martinet (*La Presse Médicale*, 1910, quoted in *Wien. Med. Woch.* 1910, No. 20) warns against the administration of adrenalin for long periods of time, especially in the case of old people. He recommends giving from 5 to 10 drops of the solution in twenty-four hours, and to increase slowly up to 20 drops. After giving for seven or ten days the remedy should be omitted, and be resumed only after a considerable intermission.

VARIATION IN THE ACTION OF CALOMEL ACCORDING TO DOSE

Hemenway (*Journal American Medical Association*, Mar. 19, 1910) directs attention to the variation caused by the size in dose in the action of a drug and instances calomel. When given in one large dose calomel produces a cathartic effect with little constitutional disturbance. One-grain doses given at regular intervals of an hour for a period of eight hours produce a cathartic action plus some extra intestinal irritation and plus a general constitutional influence. Given in doses of one-tenth grain two or three times a day, a general glandular stimulation is

induced, without special intestinal disturbance. Unsatisfactory drug-therapy frequently results from overlooking such a variation in drug action.

THERAPEUTIC POSSIBILITIES OF FRESH PINEAPPLE JUICE

Dr. B. G. R. Williams, in *The Medical Record* for May 28, 1910, discusses the value of fresh pineapple juice as a digestant. His evidently extensive experience shows that pineapple juice is capable of digesting animal tissues. A small amount of the liquid was found capable of digesting considerable protein. For example: piece after piece of steak added to but a few cubic centimeters of the juice disappeared within a few hours, and yet the enzymes seemed capable of further action when more meat was added.

Boiling kills the enzymes, so that after canning the pineapple loses its digestive powers. The author attempted to prepare a permanent preparation of the juice, but was unsuccessful, owing to the unfavorable action of preservatives upon the enzymes.

The therapeutic possibilities of pineapple juice were brought to the author's notice, some years ago, in a case of pharyngeal diphtheria, by its administration in the hands of persons who were sure that it had some advantages over ordinary gargles. He says that he has never seen a diphtheritic membrane extensive enough to indicate its use, but the circumstances brought to his mind the possible value of pineapple juice not only in certain cases of diphtheria but in other fields. This value depends upon the selective action of bromelin, upon its power of picking out nonliving proteins and rapidly digesting them, leaving behind all living tissues, thus differing from the action of salicylic acid and other tissue-solvents.

In cases of quinsy Dr. Williams' experience has been favorable. In such cases pineapple juice digests the necrotic tissue, often giving quick relief. To be sure, such an action is impossible early in the disease, though several hours or days of suffering may be avoided after the pus has once, by its presence, rendered the overlying tissues bloodless and necrotic.

The author records the case of an old lady, 84 years old, who, after having broken both thighs, developed a large bed-sore. Pineapple juice in small amounts applied to the sore produced healthy granulation and the reduction of necrotic tissue. Caution was necessary in this case to keep the juice within the margins of decubitus, as the skin was drying rapidly.

While in furuncles the ideal treatment is incision, this sometimes is forbidden and the yellow cap may remain upon a boil for hours without solution, holding back the pus. The application of pineapple pulp invariably establishes free drainage within a short time. The yellowish and desiccated necrotic head often is digested promptly.

Recurrent urethral gonorrhea, where there is a copious discharge, may yield promptly to injections of the juice, which, however, should be diluted.

In gastric conditions the indications for the internal administration of pineapple juice are less positive, because the physiologic enzymes must necessarily have an influence upon the two. Nevertheless it seems that the stomach can utilize pineapple juice under certain conditions, in which the juice acts as a preventive rather than as a cure. Pineapple juice cannot quickly correct an acute indigestion, but it may prevent an attack. In fact, the author convinced himself long ago that "pineapple is a Godsend to one who dissipates. The midnight chop-suey and lobster lose their terror, and he retires confident of dreamless sleep, even after mince pie or fruit cake."

The author concludes that bromelin, or pineapple juice, is superior to pepsin in that it is not nauseating, is more easily obtained and administered, and acts promptly in almost any kind of medium and variation of temperature. If is superior to trypsin and vegetable proteolytic enzymes in that it is more palatable, serving as a dessert rather than a drug, but chiefly in the fact that is is so readily obtainable in its most active condition.

The Need of Studying Senility

IF YOU were told that there existed a disease, or a category of diseases, of a well-specialized course, with symptoms clearly defined, with an evolution perfectly cognizable, deserving a peculiar therapy, and if, moreover, it were proven to you that that disease is widely extended, and that its history presents a number of its elements for study, I am sure that your curiosity would then be easily excited and that you would not shrink from any effort to make it your study and even to fathom the secrets of its pronounced pathology.

Senility fulfills all the above-mentioned conditions. Old people are numerous, and many of them are sick. Do you ask for examples? Take any hospital statistics and see the number of patients who have passed the age of maturity. But it is not in hospitals only that we are to look for information in this respect, it is rather in private practice that we find more exact information. Here we find diseases of infants occupying the first place, but immediately after them come the affections of old age.

But it is not only the sick old man who deserves our attention, my desire is rather to show you in the series of lectures which are to follow this one that the well old man is a very original individual who presents always quite interesting points for observations and who deserves very well to be known by the physician. The transformations which take place within his organism modify his functions so profoundly that his mode of existence must not be confounded with either that of the infant or with that of the adult person. It is quite different from both and should have special consideration.

At present I content myself with showing you the old man when taken with some slight ailment which may befall any man at any period of his life. Follow me to the hospital and examine the patient who lies at No. 9 of our male infirmary. He has been lying there the last twenty-four hours. To your questioning he answers that for the last ten days at least he did not feel quite well; that his appetite amounted to almost nothing; he has no strength; he feels cold and then, again, gets hot. His pulse is about ninety-five per minute; the temperature exceeds one hundred and one degrees. On examining him further, you find that his tongue is dry; he coughs a little with slight or no expectoration; hardly any shortness of breath perceptible; yet he looks bad and his general condition leaves much to be desired. Now auscultate this man. It may seem to you at first that there is nothing abnormal in the chest. But if your ear is sufficiently familiar with the fine points of auscultation you will find a region in the lungs where the respiration is diminished. Here is the suspicious spot. Make the patient cough and you will perceive some crepitations and a somewhat blowing respiration. Lastly, if you have had some practice in percussion and provided your patient is not decidedly emphysematous, you may add to the foregoing signs a slight dulness which will convince you that at this point the pulmonary parenchyma is affected, and you will therefore diagnosticate a pneumonia.

Put now the diagnosis of a pneumonia in an old person parallel with one in an adult person, and it is needless to speak of the different conditions which this same disease effects in two persons of different ages. Senility, therefore, has changed the disease and made of it clinically something altogether different. So you have here a striking demonstration that senile pathology and old people's clinics demand special attention.

I have to excuse myself for having taken up this really trite example so frequently adduced when the pathology of old people is to be illustrated. But there is nothing better by which to set forth more forcibly the necessity of making senility a more profound study. I know well that treatises on general medicine devote a few lines to the fact that the senile subject impresses certain modifications upon various diseases. But these same comments usually are insufficient, and if what one has to say about senility were scattered throughout a book on medicine it would put the subject in a regrettable condition of obscurity. I have thought that merely grouping those modifications would simplify their study and render them complete.

Lastly, there is a point of view by far too much put to one side, and that is that of the old man who is well,—the normal old man. The physician ought to be acquainted with that normal state of the old man, for while it does not constitute a disease, properly so called, it none the less no longer is as robust a functioning as that in a person in adult age; it is a tottering functioning which requires a steadying crutch, and it is the part of the physician to know what to furnish when the occasion demands.

You will often be called to direct the hygiene of an old person and, under whatever circumstances it may be, you will have to give these directions. You will not be long in perceiving that the man had passed his first two stages of his course. It may be he is seeking to enjoy the rest which he painfully enough has earned. It may be he wishes to prolong the enjoyments of a happy existence which are about to escape him. Or, again, he may stand at the breach, condemned to active labor which unhappy events or simple necessity have imposed upon him. You see at once that the man must have someone to come to his aid and that he has to ask a physician for the hygienic rules proper to his age and situation of which he is himself ignorant.

The hygiene of the old man, or of the man who is aging, how delicate is here the application, and how much of clinical sense is here demanded of the physician! I am not afraid of being charged with exaggerating when I affirm that that application demands more science, more general knowledge, even more tact than in that of the hygiene of infancy.

The infant carries in him a dynamic force so intense, an exuberance of functions so developed, and such an abundance of resistance that it is enough but to furnish him with materials sufficient in quantity and quality in order to obtain good hygienic conditions.

All these things are different with the aged or the aging. His functions are wearing out and nearly every day some one of them yields and so breaks the equilibrium of the economy, forcing the patient to get along in some respects with diminished functions, so that you cannot give an entire set of hygienic rules in a formula *en bloc*.

Every individual will present himself as a problem for special solution, and you will consider yourself fortunate when your personal equation will not have too much of the unknown in it, for there will be one old man who is becoming old because of his liver, another because of his cardiovascular apparatus, still another on account of his kidneys, and another, again, because of his digestive tract; and in nearly every old person you will meet with firmly rooted habits and prejudices. You will be specially favored when there will be no attempt to oppose, without discussion, against your own better special knowledge, some personal theories, which are entertained by every one of them.

We have to learn how to read an old man as we would an adult person. You have only to speak with authority and you will be obeyed, for the resistance is soon overcome in a person who is the more interested in the restoration of his health because the dispersion of his

strength is impending and he has no prospect of a long future. The exact view and true idea of the normal state of an old man will alone enable you to overcome the real difficulty of estimating exactly the means of defense which he has at his command against disease. This I call the coefficient of resistance.

These data have their value in practice of such forcible evidence that it is unnecessary to throw any more light on them.

What, then, is in fact the part which a physician should act in the presence of an old man? He should in a defined, delicate senile case try, by a properly adapted hygiene, to prevent the progress of senilizing.

Hence, first of all we must investigate the varied causes of this senilizing process. And *apropos* of these causes you will see from what will follow that age is not always the only factor of aging or getting old, nor is it even the principal factor.

I hope to prove to you that old age begins, at times, very early in life, and I shall cite cases which will command your sure conviction so that you will see that some people between the ages of thirty-five and fifty-five years have undergone development as much as other people have at the age between fifty-five and sixty-five. We shall also compare the various observations of other cases which show that senility might not begin till about sixty years of age and yet have before them ten, fifteen and twenty years before senility becomes effective.

This is enough to give you a glimpse to see that senility does not simply correspond with age; that there are other causes; that these causes are anterior to the individual and are a heritage from progenitors; or they may be contemporaneous in him and are owing to a special mode of life which he adopted and consequently are acquired causes; and, lastly, these two orders of causes may unite to produce effects so much the more rapidly and surely the more they cumulate and assist each other.

Making an earnest study of senile evolution on a particular subject in your care you will detect the secret of the decay proper to it and you will acquire exact notions of that which I have called its coefficient of resistance. At the same time you will be able to judge more wisely and more exactly of the dangers which may confront the old man when he happens to run against one or another disease that may befall him.

Translated from "Lecons sur les Maladies des Vieillards", by Doctor Boy Teissier.

(*To be continued*)

BILIARY ACIDS AS CATHARTICS

Glaessner and Singer report that in experimenting with the introduction of bile into the intestine, in order to ascertain its action on the secretion of bile, they could recognize a surprising influence on bowel activity. Injecting in a dog small quantities of bile taken from its own species and also from different species of animals (oxen) proved sufficient to produce a copious evacuation in a few minutes. The interesting questions naturally arose which portion of the intestine is influenced and what constituents of the bile effect that action.

Extensive experiments conducted partly on dogs and partly on (human) patients who suffered from obstinate constipation convinced the authors that the increased peristaltic action takes place in the colon. This fact explained the uncertainty of the action of bile when taken by the mouth and also the prompt action of the substance when introduced by way of the rectum.

The active ingredients of the bile, further, were found to be the biliary acids, and of these primarily the cholic acid, and after that the taurocholic acid. Cholic acid, however, is difficult to isolate and hence rather expensive. The authors, therefore, experimented with the socalled Platner's bile. This preparation is a crystalline mixture of bile acids and of salts of the same, and is obtained by precipitation with ether from an alcoholic extract of ox-gall. Experiments with this preparation gave effects equal to those of pure cholic acid. Taurin proved to be without effect, while, *a priori*, no action was expected from glycocol.

Best suitable for the purpose, according to the authors, are the several substances:

pure ox-gall, Platner's bile, and the bile acids, individually or in natural mixture. A suitable dosage was found to be as follows: Cholic acid, Gm. 0.1 (grs. 1 1-2) up to Gm. 0.3 (grs. 4 1-2); Platner's bile, Gm. 0.2 (grs. 3) up to Gm. 0.5 (grs. 7 1-2). Evacuations effected by this remedy very closely resemble natural normal passages.

No side-effects were observed from these doses except sometimes severe tenesmus in sensitive patients. For such cases the authors recommend the addition either of hyoscyamus, belladonna, or anaesthesin, and the like.

Inasmuch as the greater part of the dose, when administered per rectum, is absorbed in the colon, and it is desirable to have most of the drug absorbed in the small intestine, the authors enclosed the same in properly prepared capsules of greatly hardened glutoid (gelodurat), these passing the stomach unaltered. Experiments in this direction, however, are not as yet completely finished.

The biliary acids find application first of all in those forms of constipation where the difficulty of evacuation depends on some obstruction in the rectum, or where the expulsive force of the latter is insufficient to effect an evacuation.—*Wiener Klin. Wochenschr.*, 1910, 1, 5, in *Pharmazeut. Zentralhalle*, 1910, p. 197.

THE TOXICITY OF STROPHANTHIN VARIES ACCORDING TO THE MODE OF ADMINISTRATION

M. J. Pedebidou (*Province Medicale*, 1909,) undertook to find out experimentally, the toxicity of strophanthin and reported his results to the French Academy of Sciences.

He ascertained that strophanthin introduced into a rabbit by the way of the muscles is from twenty to thirty times more toxic than when introduced by the stomach, and from forty-three to eighty-four times more toxic when introduced by way of the veins.

Furthermore, he found that the intravenous method provoked sudden death in the rabbit, and is toxic in this animal at a lower dose than in man. M. Pedebidou concludes from this (in opposition to the opinions of some German physicians) that strophanthin is to be used intravenously in only very exceptional cases; even in the smallest dose, it should be given intravenously to a human being exceptionally only. It can be replaced advantageously by intramuscular injections, and better still given (as M. Barié prefers) by the mouth in granules of the standardized principle.

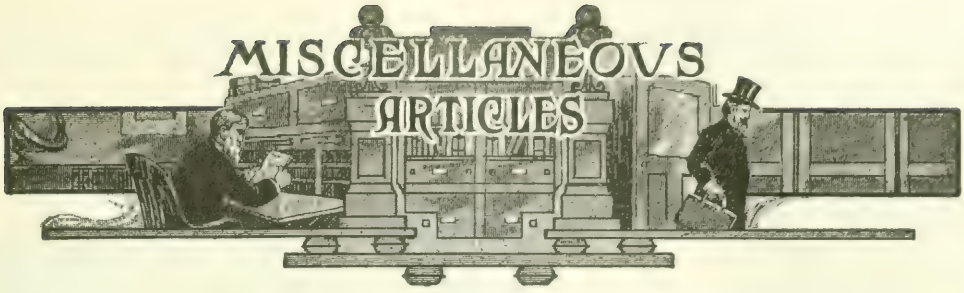
PLANTS CONTAINING HYDROCYANIC ACID

Gerber and Cotte found that centaurea aspera contains a glucoside of the amygdalin group capable of splitting off cyanhydrogen. Judging from the odor which the fresh juice of the plant develops after standing a while the amount of the hydrocyanic acid which it contains must be considerable.

E. Couperot found glucosides capable of developing hydrocyanic acid by treatment with emulsin in the following plants: In Graminaceæ: Briza minor L., Catabrosa aquatica L., Lamarackia aurea DC., Stipa tortilis L., Sorghum nigrum L., Holcus lanatus L., Poa pratensis L., Festuca Poa Kunth. In the Compositae; Aplotaxis candicans DC., Centaurea montana L., Centaurea Solstitialis L., Pyrethrum caucasicum Wild., Dimorphotheca pluvialis Moench., and Cirsium arvense Link.—*Deut.-Amerik. Apothekerzeitung*, 1909, p. 25.

PERISTALSIS OF THE COLON

The normal peristaltic action of the colon has been observed by Dr. G. Holzknecht, as reported by him in the *Muenchener Medizinische Wochenschrift* (1909, p. 2041). The author was able to observe twice, by Roentgen transillumination, that the colon transmits its contents by pushing a mass of feces forward for a considerable distance in a few seconds, after which it remains quiet for several hours. At every repeated peristaltic push a large column of feces is pushed forward into the next section of the colon.—*Wien. Med. Woch.*, 1910, col. 117.



My Trip to Chicago—And Diploma Mills

Here is a striking exposure of the methods employed by purveyors of bogus diplomas, telling how one such man met his Waterloo, thanks to a watchful doctor, and our own efficient Secretary of the Illinois State Board of Health, Dr. James A. Egan.

MY recent trip to Chicago was brimful of interest, not merely on account of the beautiful scenery, so abundant along the line of my travels, but rather for the good people and the many progressive enterprises seen in your great city. I was greatly pleased to meet the Editor of THE AMERICAN JOURNAL OF CLINICAL MEDICINE and enjoy his unbounded hospitality. My visit to the laboratories of The Abbott Alkaloidal Company, as well as to the various rooms of The Clinic Publishing Company, cannot be estimated as to value, and now, after expressing my sincerest thanks, I will say, Long live Dr. Abbott and alkaloidal medicine.

As to the "diploma mill," which I "tread," with the assistance of my 17-year-old daughter, Miss Ida A. Mann, and the cooperation of Dr. James A. Egan, secretary of the Illinois State Board of Health, I will say that Dr. Alexander Chittick, secretary and chief promulgator of the "Crescent Medical University" and the "Chicago Medical University," is not only a "honey," but indeed a "smart Alec"—just smart enough to get himself into trouble.

I saw an advertisement in one of our daily papers the latter part of December last, reading as follows:

"EDUCATIONAL"

"Study medicine at home. Diplomas awarded and degrees conferred. For particulars address: Rooms 33 and 35, Dexter Bldg., No. 84 E. Adams St., Chicago, Ill."

The above is about the wording. Knowing well that medicine cannot be studied at home and by correspondence to the extent of issuing diplomas with degrees, and remembering that I lost money on an "Independent Medical College" diploma, in an unsuccessful effort to apprehend Armstrong, its promoter, several years ago, I decided that there was something still "rotten in Denmark," even at this late day. So I instructed my daughter to write for particulars, after I had carefully gone over the college lists, as given for Chicago in the medical directories. After the exchange of a few letters between my daughter and Dr. Chittick I realized that my conjectures were correct, and having mapped out plans with Dr. Egan, I proceeded to secure a rapid running rate of the "mills."

The Chicago Medical University granted my daughter a diploma with the degree of "Doctor of Medicine," dated April 25, 1910, signed by several members of the "faculty," among which were the names of N. O. Bourque and J. Nelson Barnes, Myers, Daniels, Cameron and others. She took no course and passed no examination for this diploma. Chittick wrote that he would send an examination later and grant an *ad eundem* degree. I sent this certificate to the Illinois State Board of Health and in reply received these instructions: "Get more

diplomas at the same price, if possible, viz., $30.00." In the mean time, to test Chittick's abominable audacity, I wrote him a personal letter, warning him of the danger of the business he was pursuing. He replied that he had a charter from the State to teach medicine by improved and up-to-date methods and would let my daughter have other degrees, if she desired them. He said that

DR. A. J. MANN

old Armstrong got put out of business by misrepresentation—which he himself did not practise.

My daughter again wrote him that she did not feel qualified to practise medicine in all its branches but would like to have a degree in obstetrics. She easily won Chittick over by a promise of $40.00, C. O. D., and by virtue of ridiculously incorrect answers, under my direction, made to questions sent her by Chittick (at this time secretary of the Crescent Medical University), who wrote, after receiving them, that she had attained the high rating of 92 percent.

This diploma was so pretty that Dr. Egan himself had to say so, and my daughter decided that one profession might not do; so, on advising with me, we felt impelled to get a pharmacy degree, while they could be obtained so cheaply and easily. She applied for this and requested another diploma as beautiful as the last; the first being of poor design and workmanship with less ornamental finish. Upon application she received, in a prescription envelope, some pages cut from Blakiston's Self-Examination Booklet on Medical Subjects for the Quiz-Compends. The subjects were selected from chemistry and materia medica and therapeutics.

She answered these questions, but the answers were evidently lost in the mails, for Chittick said he had not received them but would not keep her waiting as he assumed they would be of high rating and merit, as the others were so good, and, in spite of the obvious sarcasm in the application, sent her the unusual degree of Doctor of Pharmacy (from the "Crescent Medical University, Department of Pharmacy)," C. O. D. $30.00. As she could not persuade "dear old dad" to supply any more funds, she left off application and further correspondence for beautiful works of art with blue, white and gold ribboned seals appended to sheepskin diplomas, with her name engrossed in grand style thereon.

She took no correspondence course in medicine whatever, and never studied medicine in any of its branches, or any of the allied sciences. It was obvious enough that the only qualification required by Chittick was the fees. Alas, poor "smart Alexander Chittick," he did not realize that the charter he so proudly boasted would be enjoined and revoked by the state authorities, and that his license to practise medicine taken away from him for unprofessional conduct as early as May 23, 1910; that he would be arrested and bound over to the United States Courts for fraudulent use of the mails, with a prospect of a court sentence staring him in the face. He evidently thought he would do his infamous business among the ignorant, and continue to prosper.

I do not know what fate awaits him, but the Illinois State Board of Health and the postal authorities of Chicago have all the

evidence in their hands and his fate is in the strong hands of the law. The $3,000 bond he is under will compel him to prove (if possible) the legal status of his institutions, whose names have been associated and confused with others of similar sound, deliberately chosen for the purpose of preying upon their reputation and merits.

Dr. Mann's family and his traveling outfit

A. J. Mann.

Alvaton, Ga.

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[Since this article was written Chittick has been arraigned in the courts and sentence passed. He endeavored to escape the full penalty of the law by pleading guilty. It is no longer possible for fraudulent institutions of this kind to prosper in this state, thanks to the vigilance of our State Board of Health. It is to be hoped that other physicians will cooperate with Dr. Egan, as efficiently as Dr. Mann did in this instance, if attempts at fraud are brought to their notice.—Ed.]

IS OXALURIA AN EVIDENCE OF CALCULUS?

M. C., New York, in a recent communication says: "Dr. Erdman of New York, in a paper read before the Academy of Medicine, made a very sweeping statement, i. e., that calcium oxalate in the urine of a patient suffering with clinical symptoms of stone, points to that diagnosis. I examined a specimen of urine of a patient with symptoms of stone. Urine showed enormous amount of calcium oxalate and a catarrahl nephritis. Dr. Erdman later operated on the case and found stone."

We are aware that some clinicians consider the presence of calcium oxalate in the urine as positive evidence of the presence of calculus, but we cannot agree with them. Naturally, when we find calcium oxalate crystals present in large quantities, we must regard the existence of renal stone as possible. Uric-acid crystals also, when passed in large quantities, suggest the search for microscopic masses (gravel), but nine times out of ten the presence of oxalates and uric-acid crystals have no such diagnostic significance.

Oxaluria in itself is, as a matter of fact, harmless, though it frequently evidences disturbed metabolism. If a patient with oxaluria presents coincidently other symptoms of vesical calculus, we should be foolish indeed to ignore them and treat the oxaluria alone, but it would be equally senseless to consider every patient passing calcium oxalate in abnormal quantity as suffering from vesicular calculus.

That is one of the great troubles with certain members of the profession. They see everything through a very small hole, and having found a calculus in two or three patients with oxaluria, they jump to the conclusion that every person passing calcium oxalate has a calculus. As a matter of fact, a "mulberry calculus" might be present in the bladder of an individual entirely free from oxaluria, or a persistent oxaluria exist in a patient free from calculi.

In our own practice we have treated several hundred patients with distinct oxaluria, and among the entire number not six developed gravel. Transient oxaluria, as you know, may follow the ingestion of certain fruits or vegetables such as pears, rhubarb, tomatoes or asparagus. Moreover, several crystals may be found in any normal urine, especially after it has stood for some time.

Oxalates and lithates are not infrequently found together, and patients suffering from pulmonary tuberculosis, diabetes, cancer, catarrhal jaundice, or other wasting diseases frequently show in their urine oxalates in large quantities.

Again, the finding of calcium oxalate in the urine does not necessarily mean that the patient is excreting an undue quantity of this salt, the precipitation being due to the absence of sodium phosphate, which ordinarily keeps it in solution.

Watch your patients carefully in the future, and note the disappearance of oxalates upon the exhibition of dilute nitrohydrochloric acid and a course of juglandin and strychnine. We question very much if you will find stone of the bladder present or developed in one case of oxaluria out of fifty.

VALERIANATE OF ATROPINE IN ASTHMA. GLONOIN

Please allow me to correct or add to your article in the May number of CLINICAL MEDICINE (the best journal I know, and I take several). Under the title of "Some Emergency Remedies," page 525, you say: "Asthma: Give apomorphine, etc." In my limited experience atropine valerianate is "it" in that condition. For collapse you recommend glonoin, hyoscyamine and strychnine hypodermically. Glonoin acts more quickly when given by the mouth [i. e., when absorbed from the buccal cavity.—ED.] and is the only remedy that I know of that does.

J. W. MITCHELL.

Superior, Neb.

[We are glad Dr. Mitchell called our attention to these omissions. Thank goodness, our friends are strictly "up" on the fine points of therapeutics. It is familiarity with these details, both as regards choice of remedy and method of administration, which counts most in achieving success at the bedside—curing people. We trust that others will give us valuable criticisms, or fire away with suggestions of timely interest as they are brought out in the daily round of practice.—ED.]

AN "EMERGENCY" CALL IN MISSISSIPPI

On business, about a year ago, I made an overland trip of about sixty miles into an adjoining county. I had driven at a moderate gait all day, and when night overtook me, although it was raining in torrents, I determined to go on to my destination, some fifteen miles further on. About ten o'clock I saw a house ahead of me, all lighted up, and took it to be a dance or some other social function in progress. But on reaching the house and seeing no horses or vehicles about the gate my professional instinct immediately told me that there was someone sick or in distress.

Hitching my horse I went into the house. I heard screams in the room to the right and groans in the room to the left. After repeated knocking on the door it was opened by a young lady about twenty years of age, the prettiest girl that I had ever seen. I told her that seeing the house all lighted up I thought that probably they were in trouble, and that I was a doctor.

She said quickly: "Are you a doctor? Thank the good Lord for that—we are in trouble. Dr. Miles, our doctor, is sick in bed with pneumonia, and the next nearest doctor is twenty miles from here. The Lord sent you here. You know what is the matter with mother, father is crazy with rheumatism, little brother is cramping to death with colic, and grandma will die before morning if something isn't done. Come in, Doctor, the house girl will put your horse up."

On examination I found her mother in the first stage of labor with the os as rigid as a piece of steel. I gave her an H-M-C tablet. Going into the room across the hall, I found her father suffering terribly from rheumatism and anxiety about his wife. I gave him an H-M-C tablet, also. Going into a back room I found her little brother suffering from overindulgence in eating. I gave him a full dose of Waugh's anodyne for infants. The grandmother

was on the verge of nervous prostration from anxiety. I told her that now everything would soon be all right, that as soon as the baby was born I should come in and if she needed it I should give her something to make her sleep.

Going back to the mother I found her quiet and reassured. I injected 1-4 grain of cocaine into the os and in a little while it had melted away as a fog before the rising sun. In less than an hour the baby was born.

By this time Miss Mary was in fine spirits and gave me valiant help in washing and dressing the baby. She told me of her utter helplessness and distress before I came. Her father, mother and little brother had all taken sick about dark during a torrential storm, and her nearest physician twenty miles away. No one in the house to help her except a negro house girl. She was the daughter of people of means, and was just back from Vassar College, where she had been for four years.

In all of my experience I was never so proud of the fact that I was a physician. Soon after putting the baby in bed with its mother, every one of my patients was sound asleep. After washing my hands I turned the light down and drew a chair up to some coals that were still burning in the fireplace. After going about the other rooms, Miss Mary came in and sat down by me.

She said to me: "Doctor, you do not know, you never will know, how grateful I am to you for what you have done for us tonight. Words cannot express it and it is beyond any money consideration. I know nothing about sickness. I was so helpless, I should have gone crazy before daylight. The creek was up and I could not get to any of our neighbors. Some day maybe I can repay you."

I said to her: "Miss Mary, what I have done for you is in the ordinary course of a physician's work. I am glad that I am here. I am always glad to be of service, especially to such a pretty girl as you are."

"Hush, Doctor, you know that I am not pretty."

"Yes, but you are, you are the prettiest girl that I ever saw. Miss Mary, you say that what I have done for you is beyond any money consideration. Now, I'll tell you what you can do and you will be under no obligation to me. Give me a kiss and we shall be even."

Looking at me she said, "Doctor, I won't do it."

I put my arm around her, she snuggled up close, put her arms around my neck and gave me the sweetest kiss that I have had for many a long day.

Pulling back from me she said, "Now, Doctor, remember that is all."

After giving her some instruction as to the sick, I pulled my coat and shoes off and lay down on the sofa. She put a quilt over me and in five minutes I was—*not* sound asleep. I could not help thinking about that kiss. In the language of the southern cracker-boys, it was a sockdologer, a regular double-action stem-winder. It had stirred the vital fluid in my spinal column and I simply could not sleep.

After a while, though, lulled by the patter of the rain outside and the distant barking of some watchdog, I dropped off to sleep, dreaming that bright angels were floating o'er me.

It was nine o'clock the next morning when I awoke. It was still raining. I spent the day with the family. Late in the evening, just before leaving, Miss Mary called me into her father's room. After thanking me for what I had done for them, and expressing a desire that I should visit them soon, he handed me his check for thirty-five dollars. After a weak and diplomatic resistance I accepted it. A little later, coming out of the grandmother's room into the hall, I put my hand on Miss Mary's shoulder and said to her, easy-like, "Miss Mary!"

Turning toward me she said: "Doctor, not another one! You have swindled me already, but the Lord knows, Doctor, that if it was not wrong I would give you a thousand kisses and then be in your debt."

Putting my face close to hers I said: "P—lease, Miss Mary, I won't tell."

Holding her hand up between us she perched her lips into a rainbow, threw me a kiss and then ran on ahead of me to the door.

About a month ago, in passing, I stopped in to see them. They were all well and happy. Miss Mary was now Mrs. Browne, just as pretty as ever, but entirely too large about her waistline. I felt no desire whatever to kiss her.

"What fools these mortals be."

H. S. C.

——, Mississippi.

[For some reason (we can't see why) the doctor doesn't want his name printed in connection with this beautiful little story. One paragraph only it needs in the way of comment, and that is supplied in the doctor's personal letter to us, as follows: "Doctor, let the 'boys'. have this. There isn't much medicine in it, but otherwise it will do them good, as the memory of it is still doing me good. And I am no spring chicken, nor a Lothario either."—ED.]

AMONG THE HEAD-HUNTERS

I herewith hand you some photographs of savages I saw in the Philippines, this time of head-hunters. These were taken in the Isle of Mandanao. They are somewhat gruesome, but still true to life.

The young warrior out on a hunt for heads decks himself out in the best he has, and he looks quite smart in his dress of many-colored fibers and long tail of ornaments of leaves and feathers, his plaited head-dress, with his long crooked bolo (head-knife) and his basket to carry his victims' heads in.

The incentive for getting heads is generally to secure the price of a woman for wife. The old datto requires the young buck to show his valor in this way, and he is not considered worth noticing until he has a few heads posted on poles about his hut, or "*dobo*," as he calls his home. Some tribes consider it honorable to take only heads of warriors in battle. Others, again, are not quite so particular and take anything that comes along, whether from men, women or children.

The tribeswomen greatly admire the young buck who has a few heads ornamenting his dobo. The old datto (chief tribesman) requires a few heads before he will bestow the hand of any of the maids in marriage. The number varies according to her charms, which means fatness.

The Old "Datto" and His Collection

One of the pictures shows the old datto proudly showing the heads brought in for the price of one of his many daughters. The other shows the torso of a victim found in the mountains and strapped to a pole to be carried down to the valley.

While these savages are semicannibals and vicious, they are also the worst sneaking cowards, and one good American man with

The Headless Trunk of a Head-Hunter's Victim

a half-brick could run a dozen of them. In the hands of a good medical man they are as children, and if he does them a few kindly acts, such as heal their wounds and quench a fever, they will worship him, and while in their village, he is treated to the best—the best dobo and the fattest, best-looking girls to attend it. He is supplied with provisions, rice, fish and fruit. They want him with them always, if they can keep him. L. ALLEN.

San Antonio, Tex.

PUTTING TWO AND TWO TOGETHER

I read with much interest the article, "On Cleaning Out," by Dr. M. E. Johnson, pages 574 and 575 of the May number of our journal.

Brother Johnson puts forward *his own* views without any effort to harmonize or please anyone. He simply states facts as they appear to him. I like this style of writing. The "family" is not a "mutual admiration society" but a band of doctors trying to help each other. This two and two, put together, makes No. 1.

The second couplet is as follows: Appendicitis is oftener an accompaniment of colitis than a cause, and to empty the colon promptly is to "land first" (to get the best of the fight), while to delay emptying the colon is equal to letting the other fellow (the disease) knock you down. See?

The third couplet is that the heavy purging of twenty or thirty years ago relieved the premonitory symptoms of the *modern* appendicitis and for this reason appendicitis was not as common or plentiful as it is now. Cleaning the colon was then and is now the most sanitary measure extant. Come again, Brother Johnson.

Now, I have a little secret to tell the family, and it is Masonic: The eastern clergymen, or the man from north of the Mason and Dixon line, on entering the South or West, is wonderfully impressed with the extreme ignorance found here. He imagines he is among the heathen. I hope "our boys" (the new graduates hunting locations) will not make this mistake. The people here are sharp enough to detect fraud and unless you are posted yourself, you had better try your luck somewhere else.

W. P. HOWLE.

Charleston, Mo.

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[But, really, Brother, do we *know* that appendicitis was any less common twenty or thirty years ago? In the good old times there were more deaths from "peritonitis" and "inflammation of the bowels"—and I am not sure that the enormous doses of "the physic of the daddies" did not contribute somewhat to the size of the death-rate.

On the other hand, I agree with Dr. Johnson and Dr. Howle that the thing for the doctor to do, when confronted with disease in its beginnings, is to "*land first.*" If he will "clean out, clean up and keep clean," he will have fewer cases of appendicitis for the surgeon to operate upon, and the number of deaths in his practice, from any

cause, will be surprisingly small. Don't believe it? Try and see for yourself.

The "youngster" who underestimates the intelligence of the people of the South and West has *some* things still to learn. We older fellows who have visited in the genial, hospitable southland, and been stirred by the breath of the growing, vital West and Southwest, have no delusions on this point. We have crossed swords with the brethren from these sections and know them to be foemen worthy of any man's steel, but also friends who will "stand by" in times of trouble, and who are worth cultivating.—Ed.]

SAW THE COMET SEVENTY-FIVE YEARS AGO

When I asked our old man whether he saw the comet or not, he said he saw it more beautifully seventy-five years ago than he did last night. He further said that he wanted to orientate himself, i. e., where the east was for him seventy-five years ago. He remembered well that the head of the comet was nearly at the zenith and the end of the tail at the horizon and that he stood with his back to that horizon. Then where was the east to him? Well, where was the house of prayer? Where did he face that morning at prayers? Why, at his back, hence, hence to the east! And how do I stand now, 1910? With my back to the east! So it is the same comet I saw seventy-five years ago.

Is this comet the star of Bethlehem which the wise men of the East saw? The old man said he was not astronomer enough to affirm or deny it, but the presumption is that that star of Bethlehem was a comet. For that "scepter" spoken of by the epileptic prophet, Balaam, recorded in Numbers 24: 17, is in Hebrew SHe Bhe T, which means a branched rod or switch which may be said to have a head which you hold in your hand when you switch the bad boy with the other branched end.

The "wise men of the East" may well have known of Balaam's prophecy and its meaning and so they came from the East where Balaam of old lived. The prophet did not see a star and scepter, but a "scepteral star," a comet. E. M. Epstein.

Chicago Ill.

[May dear old Father Epstein be with us to see many more comets!—Ed.]

Dr. Daniel of the "Red Back"

DANIEL OF THE "RED BACK"

There probably isn't a reader of Clinical Medicine who is not more or less acquainted with Dr. F. E. Daniel of Austin, Texas, the editor of *The Texas Medical Journal*, familiarly known as the "Red Back." As a spreader of the tobasco, in a literary way, Dr. Daniel stands on a little pinnacle which is specially and peculiarly his own. The

Red Back is the original "hot stuff", as anyone who has sizzled under the fire of Daniel's editorial pen can testify. But Daniel is also a warm-hearted, courteous southern gentleman, and when he writes he knows how to play upon the strings of humor or touch the chords of pathos—and these are good reasons why Texans—and others—should and do swear by the "Red Back" and read his journal and his books. We are glad to be able to show a picture of Dr. Daniel and his daughter.

DRIVING LAMPS

Some time ago you asked for suggestions on driving lamps.

I purchased two Dietz "Union" driving lamps with the optical lens (70 candle power) kerosene burner, had a brace made to fasten on either side of the buggy seat, and now have light almost equal to that of an auto.

The features about this one, above other lamps which I have used are: a stronger light which will not blow out, they do not smoke, and last but not the least are cheapest, for the best kind, japanned, with optical lens, is listed at $4.00 and can be purchased at a discount of 25 percent.

The side of the dash is not a satisfactory place for a lamp; but if fastened to side of seat abundance of light will be had.

I. M. Miller.

Saybrook, Ill.

SOILED AND GERMED BREAD

The following item appearing as an editorial note in a daily newspaper recently is well worthy of consideration, says *The St. Louis Clinique* for March, 1910: "Any person who is in the least observant will readily note the want of care on the part of the bread-wagon drivers, and if in the least sensitive on the question of clean food, will appreciate the fitness of the comments.

"How many drivers of bakery wagons deliver bread like kindling wood? The hands that hold the reins, adjust the harness and pat the horse are used to pile loaves, like firewood, on shelves and against coats that could be used for cultural purposes by a bacteriologist. The uncovered loaves are subsequently pawed over by grocery clerks and delivery boys, none of whom are especially addicted to cleanliness. Would it not be a good plan to defer the drinking-cup legislation until a law compelling bread to be enclosed in sealed wrappers has been made? Such a law would be worth the effort."

GIVE US AIR

Is the American becoming delicate? It would appear that we are apparently strong, but in reality we lack that stamina which the European and other nations possess. This may be due to a too strenuous life, the system being keyed to a high point of excitability, or it may be due to overwork, and too close confinement. It is a well-known fact that in the Spanish-American war a great deal of sickness occurred, and in the maneuvres around Boston numbers of men had to go to the hospital. It is almost certain that fully seventy-five percent of our men in case of war would be taken sick and not be able to appear in the field.

Within the last week fifty percent of the regular establishment of the army have applied for pensions, claiming as the chief disability tuberculosis. This certainly is alarming and is especially of serious import as the men of the regular army come from different sections of the country. It shows that our citizens are becoming more delicate and that we need a thorough and complete sanitary reformation of the entire country.

We are told to live in the open, but how can young men live outdoors when they are kept long hours in stores and offices at various forms of labor? Cannot we institute a crusade for shorter hours of labor so that our people can be out in the open, and get strength? Or will all selfishness prevail and our men degenerate, and instead of raising a fine set of beings, produce weaklings and degenerates? We sorely need a bureau of department of health, to supervise all matters pertaining to health. Such is the selfishness of the age that proper care is not taken to protect us from the ravages of disease.

In this city the father of the family is allowed to leave an infected house and mingle freely with his fellow men; that is, where there is such a dangerous disease as scarlet-fever, although the house is quarantined, the father of the family is permitted to occupy a room in the house, and go out to his business. Now, we all know that the mother who is nursing the child will certainly see her husband and other members of the family, and that the father is very apt to visit his sick child; hence we see there is no use to try to stamp out disease unless the father is also quarantined or goes elsewhere to live during the progress of the disease.

If we desire to have a strong race we must keep our people free from disease in youth, use proper precautions, and have less hours to work, otherwise we may consider the American a doomed man.

J. G. B. Bulloch.

Washington, D .C.

JESUIT SCHOOLS AND THE TEACHING OF EVOLUTION

A few days ago a friend of our institution handed me a copy of the March number of your publication and assured me that the editorial on page 261, in regard to "Theologic Medicine", was directed against our institution (Loyala University) and its affiliation with the Illinois Medical College. Now, I want to assure you that the teaching of evolution was in no way restricted. It was not even referred to. As a proof of this I shall be glad to refer you to the written agreements of our institution with the Bennett Medical College, which is an exact copy of the one with the Illinois Medical College.

While condemning others for dabbling in things of which they are ignorant, the writer of the article is guilty of the greatest injustice by accusing a body of men of something which they never did, and then proceeding to criticise them for actions which existed only in that writer's imagination.

I want to inform you, too, that the Jesuits (the same order that conducts this college), have put aside men to devote their whole energies to the study of evolution, biology, etc. I believe that you have been misinformed, and I do not think that you can give me the name of any institution which has so restricted its medical staff.

H. S. Spalding.

Chicago, Ill.

[It gives us great pleasure to publish the preceding letter, written by Father Spalding of St. Ignatius College, the department of arts of the Loyala University. Whatever institution may have been in the mind of the writer of the editorial referred to, it is certain that he would not under any circumstances have been knowingly a party to a misstatement.—Ed.]

SPARTEINE IN THE TREATMENT OF CARDIAC DILATION

Prof. Huchard of Paris discussed the subject of arteriosclerosis in an address delivered before the International Congress of Medicine held at Budapest, August 29 to September 4, 1909, a synopsis of which appeared in the *Revue Therapeutique des Alkaloides* for December, of which the following is an abstract:

According to Prof. Huchard the heart of a person afflicted with arteriosclerosis is always in danger of dilation. Since Germain Sée has shown that sparteine is the best remedy for the treatment of cardiac dilation, this drug is indicated in the cardiac symptoms of arteriosclerosis. It tends to prevent an insufficiency of the myocardia without the danger of overdrugging. This object is obtained much more surely with sparteine and with greater safety than with digitalin. The latter drug requires a much greater nicety of dosage and especially a constant supervision by the physician lest serious consequences supervene, something very often impossible in general practice. Moreover, in distinction from digitalin, sparteine, in moderate doses having no effect upon the blood pressure, is even more strongly indicated in this disease when hypertension of the circulation, so frequent in this condition, is encountered.

On account of this property possessed by sparteine of acting as a better and more perfect tonic to the heart than any other cardiac drug, Dr. Huchard does not hesitate to place it, in this respect, in the first rank, as even superior to digitalin, which latter acts only when the cavities of the heart are already dilated, while sparteine acts upon the entire cardiac muscle, whatever may be the cause of the dilation, whether impending or already acquired.

On the other hand, sparteine does not exert any effect upon the digestive tract, which is a point of great importance and more especially so in a disease where the alimentary regimen plays such an important role as Prof. Huchard attributes to it in the treatment of arteriosclerosis; and every physician knows well how much digitalin is apt to injure the stomach.

This is not all. With sparteine we do not fear digestive disturbances, but the drug has also the advantage that we need not fear toxic results, as is the case with digitalis, which has a distinctly cumulative action. Such effect never occurs in the case of sparteine. The drug is rapidly eliminated by the kidneys, even in chronic nephritis. This is a most important consideration, since in arteriosclerosis we have to deal with an insufficient action of the kidneys. The first and foremost duty of the clinician is not to prescribe anything which might interfere with the free renal functions.

Finally, although sparteine is not in itself an unfailing diuretic, it has been established that it does not only not prevent diuresis or impede it, but rather that it maintains and promotes it when already established.

To sum up: Since according to Huchard the heart in arteriosclerosis is always in imminent danger of dilation, sparteine is the drug of choice, if we may say so, in this affection, owing to its remarkable action in all cases of weakening of the cardiac muscles and in all cases where the tonic effect of this muscle, if it is dilated, has to be conserved, or in cases in which dilation is imminent but the blood pressure must not be affected.

If the heart is already dilated and it becomes necessary to reduce it as rapidly as possible to its normal dimensions, comparatively large doses of sparteine may be given, that is, from 6-67 to 8-67 of a grain, or even more during the first few days. As soon as the heart returns to its normal condition the doses may be diminished to from 4-67 and down to 2-67 of a grain in twenty-four hours. In cases where the heart is not yet dilated, but where it is in danger of becoming so, the drug may be given in doses just sufficient to prevent a failing of the heart action. In such cases doses of from 2-67 to 4-67 of a grain will fulfil the indication perfectly and will prevent the myocardiac insufficiency with subsequent dilation.

ERYSIPELAS TREATED WITH NUCLEIN INJECTIONS

I cannot offer extended statistics on the subject, but only the experience I had with two cases of erysipelas that I lately treated with nuclein, hoping that the colleagues will feel encouraged to make larger trials in the same field. The facts are as follows:

First case. On the 4th of March last I examined a laborer who was suffering from facial erysipelas. His temperature was a little below 102° F. I prescribed calomel, saline laxative, intestinal antiseptics, and locally ichthyol ointment; also pilocarpine, but only in moderate doses, being told that I should be called again if necessary. The third day I was, in fact, requested to see the patient again; and as the fever was a little higher, an intramuscular injection of mercury bichloride was made and a solution of iron chloride prescribed. The fourth day calcium sulphide was added. The fifth day, the erysipelas having extended to the scalp and the temperature being above 103° F., I gave a hypodermic injection of eight drops of nuclein solution. The sixth day the temperature was about 100.5° F., and another injection of nuclein was administered. The seventh day the patient was without fever, and he refused further injections.

Several days after my discharge I heard that the patient did not feel well for some

days subsequent, but it was only for a short while, and he made a good recovery.

During the nuclein treatment, the ferric chloride and the ichthyol ointment were continued.

Second case. A laborer who had not long before been suffering from influenza was examined by me the 27th of March last and was found to be affected with facial erysipelas, with a temperature of above 103° F. It was a severe case; the patient had had mild delirium during the night; nose, eyes and face were monstrously swollen.

I prescribed calomel, saline laxative, aconitine, digitalin, ferric chloride solution, and some nuclein tablets to be dissolved in the mouth, besides, externally, ichthyol ointment. On calling the next day, I found that the patient had taken practically nothing of either the aconitine solution and nuclein tablets. As he was worse, with a temperature ranging around 104° F. and with cardiac weakness, I prescribed strychnine, and also administered an injection of eight drops of nuclein solution. The third day the temperature was about 101° F., and a second injection of nuclein was made. The fourth day I found the patient without fever; notwithstanding which I gave him a third injection of nuclein and continued the strychnine. As the patient now was able to be up and about, I was told not to call any more.

A week later, however, I was called again and found the patient with 101.5° F. temperature, as the erysipelas, which now had spread to the scalp, was reviving. Besides giving the usual prescriptions, I administered one more injection of nuclein, and he made a speedy recovery.

It is my opinion that if in both the cases here briefly described I could have kept up the injections of nuclein for some days after the falling of the fever, the patient would have made an uninterrupted recovery.

G. R. Tecca.

Chicago, Ill.

[This is an excellent illustration of the value of nuclein in all infectious conditions. The remedy operates, as you are aware, by inducing a hyperleukocytosis; and the leukocytes, by virtue of their excessive numbers, being the more readily able to take care of the infectious virus, render the latter innocuous and remove it to the lymph-nodes, where it is destroyed. The pathogenic agent being removed, as well as the products of inflammation which are also taken care of by the leukocytes, healing occurs promptly. We congratulate you on your success, Doctor.—Ed.]

DIET THAT CURES CONSUMPTION: FRESH MILK STRIPPINGS

The all-important thing is to drink large quantities of milk strippings (the very last of the milking, which is all cream when a proper cow is selected). This seems so simple and easy that many have refused to follow directions and demanded medicines to cure them; but there has not yet been discovered any medicine that is a specific for consumption.

To get best results a healthy cow should be selected, one that does not cough and one that gives *very* rich milk. A Jersey cow is preferable. The milk should always be tested to be sure that there is a large percent of cream in it.

The last quart should be milked into a separate dish which rests in a larger vessel containing warm water just sufficient to prevent the strippings from cooling below blood-heat. The cow should be thoroughly cleaned to prevent any dirt getting into the milk so the patient can blow back the froth and drink at once without straining, as this cools it too much.

Begin by drinking nearly a pint in the morning and the same at night, and increase the quantity gradually so that in ten or fifteen days a full quart will be taken twice a day. It should be taken *immediately* after milking, before it has had time to cool any. All should be taken that can be without too much discomfort and then rest two or three minutes, and drink more and rest again, and so on until a full quart has been taken as soon as it can be conveniently. In about fifteen minutes the patient should eat at the table

such articles of food as are known to agree with his stomach. At noon eat as usual.

When the strippings are not allowed to cool below blood-heat and taken immediately after obtained, a full quart will be transfused into the circulation in a remarkably short time.

I never have seen a patient but could take the strippings without any discomfort worth mentioning when the above directions were followed strictly, although some have declared they could not before trying it; but when they delayed taking for half an hour and the milk had cooled ten degrees I have seen half a pint make them very sick.

The great secret of success with this method is in taking the milk *immediately* after milking and not allowing it to cool below blood-heat, taking a full quart morning and evening and having milk that is *very rich*.

B. J. KENDALL.

Geneva, Ill.

SUCCESS-HELPS FROM A BEGINNER

I am young, a beginner, and so very enthusiastic, but if I were to write a two-hundred word essay to a beginner after three years of beginning, its thoughts would be subordinated to these premises:

1. Short hospital service.
2. Country practice; it grinds one down to business.
3. Study the alkaloids.
4. Read THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

LOUIS W. PARADY.

Jacksonville, Vt.

COLD AS A CAUSE OF DISEASE

Dr. Robinson, in *The Critic & Guide* for May, 1910, claims that despite many assertions to the contrary the germ is not everything and that cold and chilling of the body-surface is a very important cause of disease, while, undoubtedly in many cases it merely prepares, by inducing congestion, a more favorable soil for the various cocci and bacilli, it can produce great mischief by itself without the intervention of any germs.

We fully agree with Dr. Robinson in the importance which he attributes to exposure to cold, and we would especially advance the opinion that a cold of the nasopharyngeal passages, for instance, is the most important factor of the subsequent catarrhal symptoms.

It is readily conceivable that the influence of the chilling of a cold wind or a draught in which the patient may have found himself must have an unfavorable influence upon the blood supply of the mucosa, that this will be weakened and will become susceptible to the action of the many pathogenic germs which are constantly present in our oral and nasal cavities, so that the ordinary resistance to the action is overcome, and what we call cold or catarrh is established.

Dr. Robinson cites an interesting case where dysmenorrhea was undoubtedly produced by exposure to cold, and many cases like it could be described.

A TRIBUTE TO BYRON ROBINSON

On page 482 of THE AMERICAN JOURNAL OF CLINICAL MEDICINE I find a brief notice of the death of Dr. Byron Robinson. I am, indeed, much grieved to hear of the death of a man who was doing so much and who has done so much for the medical profession and for the relief of suffering humanity.

Many years ago I had under my care the worst case of ruptured perineum I ever saw in the youngest mother I have had for a patient, although I was not the physician who waited on her when the perineum was lacerated. The woman could not retain her feces and had to remain in bed almost all the time. She had been operated on by a good surgeon, but the operation was a failure. I dreaded to take charge of the case very much. Notwithstanding I had never seen Dr. Robinson I wrote him about the condition, having read something about his flap-operation in such cases. He wrote me several letters and sent me pencil drawings of his own operation.

Later I procured Dr. Robinson's book on "The Vagina and Perineum and How to Mend Them." From his letters and the book I learned more about such cases than

from other previous sources combined. I operated on the little mother, and the operation was a complete success. I wish here and now to acknowledge my obligations to our departed friend. How much have we all lost in losing him! May he rest in peace!

"He loved his fellows and their love was sweet,
Plant daisies at his head and at his feet."

C. KENDRICK.

Kendrick, Miss.

REDUCTION OF HERNIA. CYANOSIS OF NEW-BORN CHILD

I would like to give a little experience of a character unusual to me, in forty years of practice.

Two weeks ago a man came from a saloon across the way, saying his brother had brought down a rupture through vomiting, and could not return it. I found a young man of 22 lying on the floor in much pain. First I noticed a swelling in the left groin, the size of an egg, and also noticed that the left testicle was missing. I questioned if he had been hurt and the testicle pushed up there. He finally stated that the testicle had always been missing; that the rupture had come down a little sometimes before but he could always put it back.

We got him over to my room, gave him a hyoscine-morphine hypodermic, got him on the bed with an inverted chair under hips and legs, and began taxis. A direct inguinal hernia; yes, but abnormal in all respects. However, the hypodermic had its effect, the patient became quiet, the elevated hips allowed internal traction and after twenty minutes of manipulation things slipped back into normal relations.

But I have a word of warning about this anesthetic. Last Monday I was called to a case of labor, the patient a nervous woman of 35, second child, os well dilated, R. O. P. presentation, pains moderate but normal. Previous conditions made mother and friends unduly excited and anxious. Gave the hypodermic in buttock, that being the only part convenient. Half an hour later, seeing no effect, patient clamoring for relief, gave a half-tablet in skin over stomach. Combined effect began to show in ten or twenty minutes. Pains continued, patient resting between. At end of an hour and a half the head presented at vulva, but pains were feeble.

I now began to get anxious to apply the forceps and have it over, but knowing the opposition I waited, and began giving one drop Lloyd's tr. nux and tr. belladonna every five, ten and fifteen minutes. Five minutes after the first dose the pains improved. In about 35 minutes the child was born, cyanosed, no heart-beat. The cord was over the left shoulder and twice around the body. There was an opening of the eyes and a feeble gasping cry, and a limp, apparently lifeless body. With earnest crying to Him who is the author of life, all the various methods of reviving were used for several minutes, while a washbowl of hot water, perhaps 120°F., or so, was being brought, in which the child was placed; work and prayer continued; all at once there was a pounding of the little heart, and soon the occasional gasps became regular breathing, and there was a very happy doctor as well as others.

What I want to know and do not know how to determine, is how much blame rests on me and the anesthetic and how much on possible pressure on that cord?

May I add that the alkaloids and the journal and I are firm friends. I began using the alkaloids while with C. C. P. Silva & Co.

Peace and prosperity to you all!

C. A. FREEMAN.

Market Lake, Ida.

[It is a little hard to place the difficulty in this case, for while the compression of the cord was alone sufficient to cause the difficulty with the child, the technic used in administering the anesthetic was very open to criticism. We advise the use of the half-dose only in obstetrical work, except in operative cases. If this is not effective it may be repeated at the end of an hour. The giving of several doses *close together or near the approach of delivery* is not free from danger to the child. However, the absence of the heart-beat in this case points rather

to compression of the cord than to any deleterious effect from hyoscine and morphine, whose pronounced depressive action is upon respiration rather than upon circulation. I have lost more than one babe from such compression, long before the hyoscine and morphine were employed conjointly and when no drug was used—ED.]

DIET IN TYPHOID FEVER

Dr. Edward C. Register, editor of *The Charlotte Medical Journal*, presented a very interesting and important paper before the Tri-State Medical Society of the Carolinas and Virginia, on "Diet in Typhoid Fever," which he has published in the March number of the periodical named.

After discussing the necessity of considering for each case all individual factors in determining the kind and amount of food, such as the stage and intensity of the disease, the age and weight of the patient, his feelings and inclinations, the presence or absence of nausea or of vomiting and toxic symptoms, the author says that at the beginning of an attack of typhoid fever alimentary elimination should be as thorough as when a surgeon prepares his patient for an abdominal operation. After this food should practically be withheld for several hours, and then the patient may be put on a gradually increasing diet; with the result that generally he is not so likely to suffer from dietetic irregularities as he would be without this preparation.

The natural question, What is the best diet for the typhoid patient? is very difficult to answer. *We have no ideal food for the typhoid patient*, neither have we any one food that will suit every case, or that is the best in every case. Speaking generally, the author is of the opinion that milk in some of its forms is the best diet and it has proved so in fully 85 percent of all the cases he has treated. The objection made to sweet milk, that it constipates, does not hold, since this is rather a desirable result, because "the most favorable symptom in typhoid fever is constipation," and out of a thousand cases of this class that have come under his observation only one of the constipated patients died.

Milk should not be given in too large amounts at a time, nor should it be taken rapidly, lest large indigestible curds form; more than one-half glassful should not be given at any one time, and if this amount be sipped from a teaspoon, large curds will not form; and this can still further be prevented by the addition of lithia water.

In many cases the patient prefers sour milk or buttermilk to sweet milk, as being more palatable, and this is of value, since it has a tendency to check putrefaction, is easily digested and highly nutritious.

NOT READY TO QUIT

I've been thinking about letting CLINICAL MEDICINE stop coming, and I'll tell you why, in which telling you'll see why I didn't. It's this way:

The next stone on my journey will have "eighty" on it, and I feel as if it's time to quit work; so when I try to cultivate that disposition, here comes THE CLINIC, running over with fire and lightning, calling to the trenches to stand by the guns, and give 'em another volley. Then I forget my age and resolution, and with grape and canister in dosimetric doses charge the enemy again, and hardly get him laid out before there sounds another call. The eighty-stone is a good way off, yet I hope to reach it. In the meantime I want the waste places built up, pellagra routed, and I want every good doctor everywhere to test the superior merits of active-principle medication used alkalometrically, to effect. Then the sick will rejoice, the well be glad, the doctor will be proud, and the devil mad.

I need not say here how highly the journal should be esteemed, nor intimate the weight of obligation we are under to the men who make its widely read pages month after month. That I've read every number for fifteen years and have been largely influenced by it in my work I freely confess. It, too, has grown in grace and knowedge of the truth and like most goslings is much bigger, looks like full-grown, and its present

seems all serene. But what of the future? You, too, must some day lay your armor by, and you may! When? You are doing great work. Do you know who would do it like you? A word to the wise, that's all.

In hope and with great respect, yours,

R. I. McQuiddy.

Lawrenceburg, Ky.

[Dr. McQuiddy is a stanch old warrior, as appears from the letter to us, which we take the liberty of reproducing. Thank you for your good words and for your caution. Clinical Medicine, and the work for which it stands, is here to stay. There are many engaged in this great work, and although the master-mind is needed to hold and control all the different threads, the work can no longer be done by the Busy Boss alone, the many must help him. Truly, we cannot conceive the emergency to which you allude, Doctor, and sorry will be the day when it becomes an actuality. But never mind, for the present we work and we all work together.

Dr. McQuiddy talks of quitting, by virtue of his eighty years. Yet he is not a quitter by any means. That is shown by an article which he has sent us together with the letter, and which we shall print.—Ed.]

AUTOINTOXICATION AND THE CLEAN-OUT POLICY

I have practised medicine for thirty-four years and during all that time I have never had a single case of typhoid fever develop in my hands. For twenty years I did a general practice, and can assure you it was no mean one either. I have a record of sixty-two patients a day for two months at a time, in a neighborhood where typhoid fever was prevailing, without a single case falling under my care except in consultation. Other doctors in the same place who were not doing so much business as I was were losing from five to fifteen patients each year from this disease. I have arrived at the conclusion that it is little less than criminal to allow a case to go through the stages known as typhoid fever. But I do not want a mere pretense about cleaning out the intestinal sewer. I must know personally that it is cleared of all substances that can possibly decompose or irritate the bowel.

If there is no culture pabulum left for the germs to propagate in, there will be no germs. Thirty years ago, in this section of the country, trained nurses had never been heard of and neighbors attended each other when sick. Families under my care would attend for weeks other families under the care of other doctors in cases of typhoid fever. They ate the same food, drank the same water, breathed the same air. Yet my families did not have typhoid fever.

Why is this so? Is it because my families were of the "charmed circle?" Had they been immunized with some serum as is the practice of the present day in so many diseases? No, for such things were not known then. When symptoms of what we now call "autointoxication" occurred, I cleaned the patient out. We did not know then that there was such a thing as "autointoxication." Autointoxication is a big word, the meaning of which few patients can grasp, so the "typhoid" doctors can hold their clientele in a grasp of mystery. This is the stock in trade of a large majority of the doctors. Shame be it.

The fight of my whole professional life in consultation practice has been to get the consent of the attending physician to clean out and keep the body-sewer clean. In my first year of practice, in 1876, I was called the "physic Doctor." At first it really irritated me, but as I went on in the even tenor of my way and saw that I was doing more business than any two of my competitors (who had given me the cognomen) combined and that they were losing double the number of patients that I was, besides having cases linger for weeks at a time with what they called typhoid-fever; and when by-and-by people began to say that "Etter" did not have any of those long-lingering cases, I began to feel a little more at ease. I thought it better to abort all the cases possible than to get the name of being a good one to nurse cases through critical periods. Especially was this so when I saw that

many of the doctors failed to "nurse" their grave cases through and gave jobs to the undertakers.

J. R. Etter.

Crawsfordsville, Ind.

[It's a funny thing that physicians who obey the "clean-out-keep-clean" slogan have so few patients ill with typhoid fever! The writer remembers that for several years before giving up a large general practice he had only one case, that of a young man who had disobeyed instructions as to cleaning out. Of course we do not claim or believe that all cases of typhoid fever can be prevented by the "clean-out", or aborted when once started, by the "clean up"—the sulphocarbolates; but we do believe that many die unnecessarily because doctors do not avail themselves of these simple, practical methods. Dr. Etter's record is truly remarkable and shows that the gospel of cleanness which we preach so persistently is the true one.

Why can we not have a full, free, frank and friendly discussion of this whole problem of the possibility of preventing, arresting or modifying acute diseases in their early stages, especially typhoid fever? We want such a discussion and we need it. Let every man "say his say," briefly and right to the point. Now is the time and our pages are open.—Ed.]

ECLAMPSIA; FRIABLE WOMB; HENOCH'S PURPURA; SKILFUL DIAGNOSIS; PROMPT ACTION

I report three unusual cases that occurred during my service at the hospital, which are of interest, in that diagnostic skill as well as prompt therapeutic action were imperative to bring about recovery.

Case I. Mrs. M., a primipara 20 years of age, had been delivered of twins. A short time preceding delivery symptoms of eclampsia developed which increased after delivery until the patient was having a severe convulsion every 15 to 30 minutes. She was markedly edematous and comatose when she was entered at the hospital. Urination was slight and involuntary. The temperature ranged from 103° to 105°F. and evidences of rapid dissolution were apparent. Morphine, chloroform, pilocarpine, diuretics, enemata, hot-packs, and a host of other remedies were tried hypodermically and by rectum but the patient failed to improve. A bad prognosis was given.

My opinion was asked and I suggested venesection, with intravenous saline transfusion, which I was permitted to make. I opened the median basilic vein, allowed a pint of dark, ammoniacal blood to escape, inserted a canula and injected an equal volume of sterile normal salt solution. The convulsions which were occurring every fifteen to thirty minutes did not return for twenty-four hours, when one attack of moderate severity was experienced. The same procedure was then repeated in the other arm. The patient had no more convulsions and began to recover. The edema gradually disappeared, her mind became clear, and then she began to take liquids by mouth. Complete recovery ensued in three weeks.

This case is unusual in that postpartum eclampsia with rapid aggravation of all symptoms renders the prognosis extremely grave. While less dangerous than antepartum, Green, Zweifel and Oehlhausen show in their statistics, that it is much more serious than is generally believed.

Case II. Mrs. W., age 35, a multipara, came to the hospital apparently in labor but seemed to make no progress. Upon examination, in place of a vertex presentation bony prominences were felt, which proved to be the clinoid and other processes at the base of the cranial vault. A diagnosis of anencephalus was made and inasmuch as no progress was being made, forcible delivery was thought to be indicated. Under anesthesia the forceps were applied and a monster with an exceptionally large body was delievered.

Immediately following delivery a gush of blood came from the vagina. Credé's method failed to check the flow, and as the woman was rapidly becoming exsanguinated,

rupture of the uterus was thought of. Examination revealed two large tears extending through the cervix well up into the body of the uterus, the blood pouring out of the uterine arteries. The uterus was divided into an anterior and posterior lip, very friable and boggy. Large artery forceps were clamped on each raw surface and catgut sutures inserted and tied, thus repairing the rents. A pack was then inserted and further bleeding stopped. The pathological condition of the uterus which undoubtedly caused the faulty development of the fetus was still active at delivery, impairing the elasticity of the uterus and allowing the extensive rents.

This case illustrates an important point. Without clamps or long artery-forceps that hemorrhage could not have been stopped and without quick thinking a death would have ensued. As it was, the woman made an uninterrupted recovery.

Case III. Miss K., age 16 years, developed a sore throat which was diagnosed by another physician as tonsillitis and which subsided in a few days. But following this, pains in both limbs were experienced. Simultaneously with these pains a purpuric eruption developed all over the body. Severe uncontrollable vomiting and retching, with pain and tenderness over McBurney's point, were also noted.

This being one of my own patients, I gave two high enemata in the hope of reversing peristalsis, but without results. Calomel and laxative salines failed to check the vomiting or to move the bowels. I tried bismuth as well as other remedies to allay the vomiting, but in vain. I thought of acute appendicitis with obstruction symptoms, which frequently accompany that disease, but as the patient had no rise in temperature and as operative proceedings seemed contraindicated because of the purpura, I decided to remove her to the hospital for developments.

Upon admission her temperature showed 101°F. but dropped a degree after a high combination enema had produced a good bowel movement. The vomiting, however, continued as well as the tenderness and pain in the right lumbar and umbilical regions. A leukocyte count showed 14,800 whites, and a differential count showed 78 percent of polynuclears. An infection seemed imminent, but after a few days the temperature subsided, the vomiting gradually lessened, and the patient recovered within a week from the day of entering the hospital.

From the purpura and gastric crisis I made a diagnosis of Henoch's purpura. The gastric symptoms were in preponderance, so the weight of evidence pointed to Henoch's disease, although some rheumatic symptoms were present; I might easily have been led into opening the abdomen had the purpuric rash not been present, as the picture was one of intraabdominal distress. Although I believe a catarrhal appendicitis complicated the purpura, operation was contraindicated because of the hemorrhagic state, unless suppuration had supervened.

Lucius H. Zeuch.

Chicago, Ill.

ON THE RELATION OF ARTICULAR RHEUMATISM AND OF SEPTIC CONDITIONS TO TONSILLITIS

Dr. P. Schichhold (*Muench. Med. Woch.*, 1910, p. 281) in a paper read before the Leipzig Medical Society recently asserted that articular rheumatism is frequently caused by the absorption of toxins from pus-pockets in the tonsils. In many obstinate cases of arthritis he succeeded in obtaining permanent cure through complete removal of the tonsils, after the pus-sacs had been emptied. Even complications such as endocarditis and myocarditis, if recent, yielded to the treatment.

Professor Curschmann in the discussion of this paper supported Schichhold, stating that he had for many years insisted upon the importance of tonsillitis in the etiology of septic processes in the body; he had always advocated the removal of suppurating tonsils during such conditions. This procedure had been found of value, especially in certain obscure forms of nephritis, which promptly improved after tonsillectomy.

The ordinary examination is not sufficient to determine the presence of pus in the tonsils; the pillars of the fauces must be drawn back and as much as possible of the glands laid bare in order to uncover the pus-sacs. The tonsils are very often not enlarged and have not given rise to any subjective symptoms.

The question raised by Schichhold had been proposed by Guerich in 1904; he claimed that practically all cases of articular rheumatism are produced in the manner indicated, and succeeded in permanently curing by tonsillectomy 98 out of 125 cases treated. This etiologic suggestion is interesting in many respects and promises to bring about the satisfactory solution of many pathologic processes which have been obscure hitherto.

We are reminded in this connection of the claim made by Professor A. Poncet in Paris, for more than a decade, that there exists a tuberculous form of rheumatism, especially of acute articular rheumatism. So far Poncet has only been able to adduce clinical proofs, which were not sufficient to substantiate his claims; but the ideas promulgated by Guerich, Schichhold and Curschmann may lead to a vindication of Poncet's theory. We have long known that tuberculosis may be produced by extension of the infection from the tonsils. It stands to reason that an absorption of the toxins (which must be freely formed in the tonsillar crypts, since these offer an ideal culture-nest for bacteria) must lead to disturbances wherever they may be deposited after having been taken up by the circulation.

The matter is of practical interest because it affords an explanation of many obscure septic conditions, and offers a ready means of treatment. However, care must be taken to lay bare the tonsil as far as possible; the glands adherent to the pillars of the fauces must be loosened, the pus-sacs are best emptied, after which the tonsils may be removed in layers, in several sittings if necessary. The tonsillotome, Schichhold claims, is valueless for the purpose, since it removes only the upper portion of the glands. Tonsillectomy is not an easy operation and not without danger. The method followed by him of slitting the glands, and then removing them in layers will probably recommend itself as best adapted for the practician.

NERVOUS INDIGESTION

Indigestion due to neurasthenia and its allied nervous conditions is very prevalent among certain classes of men and women; but rarely occurs in children. It is found in 80 percent of the anemic women of the cities, especially those who are suffering from functional disorders of the uterus and its appendages.

Nervous dyspepsia is rarely characterized by any *real* digestive disturbance. When the condition is found in men it is usually due to worry, liquor, tobacco or overwork. It is most commonly met with in healthy-looking and full-blooded males, though in women the reverse is the rule.

My first reason for taking up this subject is to show the very intimate relation the genitourinary tract bears to the digestive functions of the human body, especially in females.

In women suffering from this type of dyspepsia, if we go deeply enough into the history of the case, we shall find that the patient either has had in the past, has at present or is on the eve of one of the numerous types of uterine or ovarian inflammation. When there is a pathological derangement of these organs there is sure to be more or less nervousness, hysteria, melancholia or neurathenia. Allow this nervous condition to run on for any length of time and the patient will develop dyspeptic symptoms.

In a case of this kind what good will pepsin, pancreatin, hydrochloric acid, nux vomica and kindred drugs do? Also, what permanent good can be obtained from the bromides and nerve depressants generally? Treat intelligently the original disorder, in the uterus or its appendages, and you will usually cure, not only the nervous indigestion, but also the other nervous symptoms.

In the male the best treatment is massage, regular exercise, regular habits, and total abstinence from liquors and tobacco. Change of climate and of scenes is also helpful.

Where there is insomnia, for the first few nights some mild hypnotic is indicated, but it should not be continued for any considerable length of time.

Hygiene, diet, exercise and complete rest do the most good in the vast majority of these cases.

The nervous symptoms of the menopause can best be treated without drugs, with the exception of small doses of monobromated camphor. In young girls where amenorrhea is due to lack of hemoglobin, of course iron or arsenic is indicated.

Where there is any pelvic inflammation or irritation of the pelvic nerves, the liver and digestive organs are deranged through the reflex action of the spinal accessory and sympathetic nerves. A vertical headache combined with a hypersensitive nervous system almost invariably points to some type of pelvic inflammation.

Renal diseases seem to act peculiarly upon the sensory nerves so far as the digestive organs go. Any one of the deep-seated kidney diseases will produce more or less nervous dyspepsia. Frequently, particularly in males of apparent good health, the kidneys are the chief cause of socalled "nervous" indigestion.

Many cases of intestinal indigestion are in reality due to diabetes insipidus. Since most cases of intestinal indigestion are caused by nervous reflex action, and the original cause is so frequently found within the pelvis in females, or the kidneys in both males and female, it is a wise precaution to look into the condition of the genitourinary organs before attempting to treat the dyspepsia.

C. J. HARBORDT.

Dover, Del.

[Of course Dr. Harbordt is right. If indigestion is due to disease of the pelvic viscera or to some kidney ailment, or to pathologic conditions elsewhere, we should strike at the seat of the trouble. The same reasoning holds good when we are asked to *cure* persistent headaches, lingering coughs and other serious conditions the etiology of which is not apparent. Study your patient. Learn all you can by physical examination; then call the laboratory into service. Have the urine examined, the blood, the sputum. Often you will obtain facts which wonderfully simplify the case and make cure or alleviation comparatively easy.

Yet there are many things we can do in the interval, before we know all there is to know about the case. For instance, careful attention to the toilet of the bowel will not only relieve the pressing symptoms, but it usually puts the essential pathologic condition in more favorable shape for further treatment, and directly aids in the cure. If there is too low blood pressure and a condition of lowered resistance benefit will follow the giving of remedies to correct this trouble; if the opposite is true, there is a similar indication for the restoration of the vascular equilibrium. The physician should study the aberrations of function, and endeavor to restore these functions to a normal condition, meanwhile studying the patient, seeking to get right down to the foundation of all the trouble.—ED.]

THE DIVINITY OF MATRIMONY

In last April's issue, 1909, of your magazine appeared an excellent article by a physician in which there was a statement substantially as follows: "The divinity of marriage is one of the worst errors that has ever been imposed upon humanity." In a following number this statement was contested by a clergyman with a number of apt quotations from the Bible.

If it is not now too late, nor too far removed from the purpose of your magazine, I should like to add a few words on the same subject. I have been too busy heretofore to spare the time, but it has been running in my head, because it seems to me that both the aforementioned gentlemen missed the point.

The physician spoke a truth when he attacked the "absolute standards," which

offer no logical or scientific explanation of the varied customs and arrangements in the matter of marriage, varying always with races, individuals and times, not allowing for moral evolution, branding primitive stages as retrogressions from an original God-given standard which would have been incompatible with the then existing conditions of life, as demonstrated by geology, paleontology, anthropology and other sciences dealing with the material history of the earth. But when he denied completely the divinity of marriage, he laid himself open to the accusation of having denied any spiritual aspect in the union, i. e., love itself.

That love does exist, is self-evident; but deny this unselfish element in marital devotion, and you have marriage reduced to the same sort of breeding union which takes place on our stock farms. There is no longer self-abnegation, reciprocal duty, nor spiritual evolution; for by the history of mankind, the goal toward which we seem to be moving, is Universal Love (unselfishness).

The clergyman is right too, but his quotations though all true are used to prove the very supposition on which they are based, an absolutism which is contradictory, as before shown.

It seems to me that both gentlemen's views may be reconciled by recognizing that there are different stages of love, or rather three distinct types:

First, the kind that is met on the streets, in the dives and brothels, though a perfection perhaps of certain phases of modern civilization, still for the most part contrary to natural law, subverting social order, and in its lower forms spreading disease, wrecking the economic usefulness of individuals, and filling the world with waifs, criminals, and abortive forms.

Second, and by far the most universal, found among polygamons and monogamons, a sexual union primarily for the purposes of nature, i. e., child-bearing and child-rearing, but essentially selfish in character and therefore taking the form of a material contract, usually dissolved on the physical disability, prolonged absence or death of one of the parties. The love for the offspring is mostly a matter of personal pride.

Third, the highest form of union, more rare than the second type, but still common enough, thank God! and certainly dreamed of by most young people; a union in accordance with and for the purpose of nature, but with full realization of this fact; in which, therefore, we love the other person in the abstract through comprehension and pity of our human frailties, and in person with the same unselfishness with which we love a child, knowing how much of the future lies in our own hands. In our life, mingled in the bodies of the children, we have a faint realization of the future when these earthly forms no longer hinder the direct communion of our souls, and for that we love the children.

L. A. Miller.

Chicago, Ill.

FOR THE CURE OF ASTHMA

My dear Dr. Butler:

Your article in The American Journal of Clinical Medicine for May (page 495), leads me to write you, as it convinces me that you are nearer the practical and successful treatment of asthma than any writer I have observed; only I can not quite agree with your statement that "in cases where a persistent *bronchial catarrh* is at the bottom of the trouble, obviously less benefit is to be expected from medicine."

Of course we all know that the classification of asthma is constantly undergoing changes and that this troublesome condition has at all times been classified differently by different writers. However, if it is true, as claimed by many, that this same *bronchial catarrh* (or bronchial inflammation) *is the cause of eighty percent of asthmatic cases*, and if, as you tell us, little benefit can be expected from medicine, then even you, who, as I have before said, evidently treats asthma on more rational lines than any writer I know, must feel that you are quite helpless in attacking this disease from a curative standpoint. But if I can show you that we can do some-

thing for all these cases and cure a large percent of them, I believe you are a man who will be willing to be convinced.

Now, I fully realize that this statement is so strong as to make it almost unreasonable, so, therefore, I shall ask Dr. Abbott, with whom I have some acquaintance, to vouch for my sanity. I can say this, that for twenty years I have been treating asthma of every description, and I am sure I could get affidavits were I to make the effort, from nine-tenths of these persons, to the effect that I cured them, and from the other one-tenth, that I did them more good than they ever received before.

Long ago I discovered that those cases most easily cured are the very ones you say are the least promising; and when I tell you what this treatment is, you will find that you do not have to go very far beyond your present method, and so you will see its possibilities quicker than will the average physician.

I desire to go a bit into history. I was graduated in medicine in 1881, and about ten years later visited a friend who was graduated at about the same time I was and who located in Boston. His mother being a chronic asthmatic sufferer for many years, my friend naturally had made every effort to cure her; but he told me that all he tried, and all the best practitioners of Boston had tried, was of no avail. So at last he took her to Vermont to an old doctor whom he knew as a child to have a wide reputation for curing asthma.

This old doctor gave her medicine compounded from sunflower seeds, Virginia snakeroot, and potassium iodide (2 grains per dram), and my Boston friend told me that in two weeks his mother was entirely free from her trouble and had remained so for several years up to the time he told me of it. He also told me that since then he had tried to get hold of all the asthma-cases he could and had cured every one of them.

With this same mixture I also, since that time, have cured the greater number of my asthma cases. However, a number of years ago I added lobelia for some of the cases I then treated, and have continued its use ever since. Still later I added strychnine arsenate in 1-80 to 1-40 grain doses, as I have found the latter, even when given alone, a valuable remedy in certain types, so that now the combination is as follows:

Sunflower seeds, snakeroot, lobelin, potassium iodide (2 grains per dram), and strychnine arsenate, with gin as a menstruum.

I understand the old Vermont doctor claimed the virtue to be principally in the sunflower seeds, and I myself am convinced of their efficacy, inasmuch as I treated all my first cases on the original prescription and they made astonishing recoveries.

Now, Doctor, there is something in this. I once was skeptical, but long ago have become convinced. I have come to the point where I give this combination and expect a cure with the same confidence that I give opium to relieve pain.

Only very recently I have had an unusually severe case of five years' standing, and I told this patient that I could relieve him in three days. He was relieved in less time than that, and in one week could walk full three miles and even sleep all night in bed, which for three years he had been unable to do except he smoked stramonium leaves every two hours through the night.

I will admit this is almost too much to believe, in view of the variety of causes and the general attitude of the profession toward this malady. But I know what this remedy has done for my patients, and I know of no reason why it should not serve you as well. Will you not try it in those cases which are less amenable to treatment but which I have found are the easiest to cure.

F. A. Southwick.

Stevens Point, Wis.

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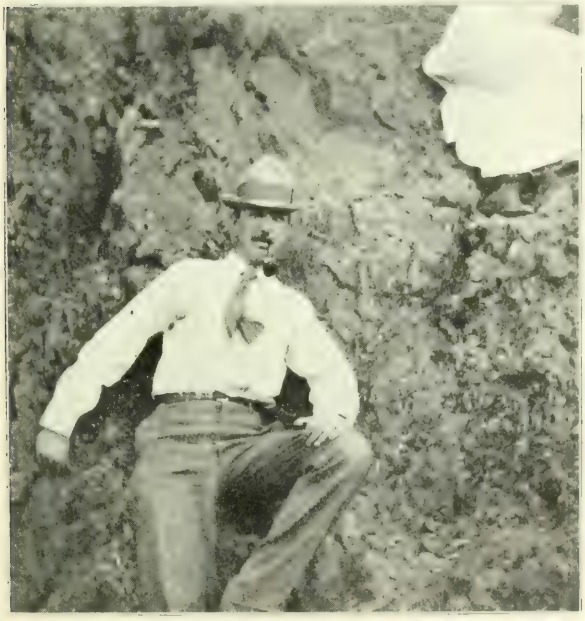
[There is an idea in this—and I am not sure but it is a good one. The sunflower seed was recommended for the treatment of asthma in some of the older books, but like many other really excellent remedies has been allowed to fall into neglect. Why it should be of value is not very clear, but there is enough evidence that it does help some cases, to encourage other physicians to take up the suggestions made by Dr.

Southwick, try them out and report. There are enough members of the "family" to determine, once for all, as to the value of the treatment.—Ed.]

MENSTRUATION IN A BABY

Menstruation in infants and very young children is a rare abnormality. Edgar in his "Practice of Obstetrics" cites a number of instances (*vide* p. 22); and Havelock Ellis in his new work, "Sex in Relation to Society," just published, says: "A slight degree of menstrual



Dr. George L. Servoss, of Fairview, Nevada

and mammary activity occurs at birth" (p. 34), and in a footnote he makes the following additional statement: "This genital efflorescence in the sexual glands and breasts at birth or in early infancy has been discussed in a Paris thesis by Camille Renouf ("*La Grise Genital et Manifestations Connexes chez le Foetus et le Nouveau-Ne*," 1905). He is unable to offer a satisfactory explanation of these phenomena." (p. 35).

Owing to the rarity of this condition and to the fact that I was particularly fortunate in having as nurse for the mother and child a very capable and well-trained regular graduate physician with a year's hospital experience, I desire to report the following case which I had under my care. I cannot do better than present Dr. Ricketts' report of the case which she kindly furnished me, to wit:

"Child, female, was born January 27, 1910, at 5:30 a. m. after a labor of two and one-half hours' duration. Labor was normal. No instrumental delivery. Child apparently normal; bowel action normal. Did not urinate during the first 24 hours, and but once, a small quantity, during the second 24 hours. Thereafter urination was normal in amount and frequency. The morning of the 30th, when the child's diaper was being changed, a string of very sticky, viscid mucus was noticed to be escaping from the vagina. It clung to the diaper and stretched out into a rope some eight inches in length and as big around as a coarse knitting needle, but did not detach from the vaginal opening and was with some slight difficulty severed at the labia, owing to its tenacious consistency.

All through that day and the thirty-first (the following day) a small amount of the mucus was found clinging to the labia each time the diaper was changed. It became gradually of a less sticky consistency. During the night of the thirty-first it began to change, and there appeared a tinge of blood with the mucus, and after this at each time of changing there was found a small stain of blood and bloody mucus on the diaper amounting probably to from one to three drops each time. This discharge became gradually more bloody in nature until it was bright-red in color and in appearance in every way resembled the normal menstrual discharge, even containing at times what appeared to be minute shreds of membrane. The discharge clearly emanated from the vagina and would bathe the labia when not disseminated by a flow of urine. The

discharge continued four days, growing somewhat less upon the fourth day and disappearing abruptly the night following the fourth day."

I examined the baby a number of times and found the labia bathed with the secretion which came from the vagina. Careful search revealed no traumatism or lesion of any kind. Examination of the secretion by Prof. Sackett, bacteriologist to the Colorado State Agricultural College, showed the presence of erythrocytes, or red blood-corpuscles.

The mother is somewhat hysterical and both Dr. Ricketts and myself, at one time, a few days after her confinement, feared the onset of postpuerperal mania.

E. STUVER

Fort Collins, Colo.

A GRACEFUL POETICAL TRIBUTE TO A TRULY GREAT MAN

At the last meeting of the American Medical Association the candidate of the East for the presidency of the National body was Dr. Abraham Jacobi of New York. He polled a large vote in the House of Delegates. With all our admiration for our brilliant fellow-townsman, Dr. John B. Murphy, we cannot but feel that the fine service of Dr. Jacobi to our art and to humanity was most deserving of this splendid recognition from an organized profession.

The eastern medical press has recently given Dr. Jacobi some special appreciations, notably *The Critic and Guide*, and *American Medicine*. From the latter we are reproducing the picture of Dr. Jacobi and the beautiful poem by Dr. H. Edwin Lewis, which follows:

A SYMPHONY OF DEEDS

A life so clean, with service as its cue,
  Such ceaseless effort for the sick, forlorn,
That tongue nor pen can give the homage due.
  Save to thank God that such as he was born!

How many hearts have filled with grateful cheer
  At words of hope that he alone could give.
How many times his skill has banished fear,
  And taught some erring one the way to live.

A true physician, thinking naught of self.
  His entire life a symphony of deeds,
Untouched by baser aims or greed of pelf,
  His only aim to succor human needs.

DR. ABRAHAM JACOBI

And thus he stands, the Nestor of us all,
  Beloved, admired, with every man his friend.
Long may it be before he hears the Call,
  Far in the future may his journey end.

The poem and the picture both evidence the progressiveness of our eastern colleague, Dr. Lewis, and the fine spirit of the scholarly magazine edited by him, *American Medicine*. We are glad to give also a glimpse of Dr. Lewis' face, which at least reflects in part something of his genial personality.

American Medicine needs no introduction; it can (and does) speak for itself.

THE BACKBONE MONTHLY CHANGES HANDS

Here is an announcement that will surprise some of our friends. *The Backbone Monthly* has been sold to members of the

DR. H. EDWIN LEWIS

Eugene Smith Printing Company of Aurora, Illinois, and will be issued hereafter by The Backbone Society, at West Aurora, Illinois. It is to be enlarged, the price increased to one dollar, and typographically made just as artistic and attractive as the "know how" of men who have made a phenomenal success in doing things of this kind (and better than most other folks) will permit.

Editorially it is destined to grow bigger also, or we miss our guess. It is to have the time and thought which we could not spare it—plus all the help that we can possibly give without robbing our own special work. Tom Dreier, who used to conjure up the strong stuff for *The Business Philosopher*, and is now edifying the elect through *The Caxton Magazine*, will have full editorial charge, but he is to be aided, abetted and otherwise supported and kept up to the mark by the old members of the staff, all of whom love the little magazine and want to see it become a real force, living fully up to its motto, "To be strong, to be true, to be kind." Dr. Burdick's name will still appear on the editorial page of *The Backbone Monthly*, and it is his purpose to see that "the doctor" gets the square deal (that's all he wants), not some of the time, but all of the time.

Frankly, Brethren, readers of CLINICAL MEDICINE and readers of *The Backbone Monthly*, we hate to let go of the little publication. It was and is the concrete expression of an idealism, a hope, a strong desire to extend our field for service. But we have found that there are limitations, and that we must draw in our lines. And so, with regret—and yet with faith that it is entering into a larger future—we pass *The Backbone Monthly* along to its new owners.

We want you to support it. The magazine is going to be heard from. Under the stimulus of the concerted and concentrated effort of its new editorial and publishing heads it will make some of the gray-whiskers of conservatism, as well as some of the feminine soft-pedalers (or peddlers) of a jelly-fish idealism, turn a listening ear toward West Aurora. Send in your subscriptions—now, while fifty cents may be accepted for a year's subscription—and send in your contributions. Dr. Burdick will be glad to hear from you, for the present, when you have something suited for publication.

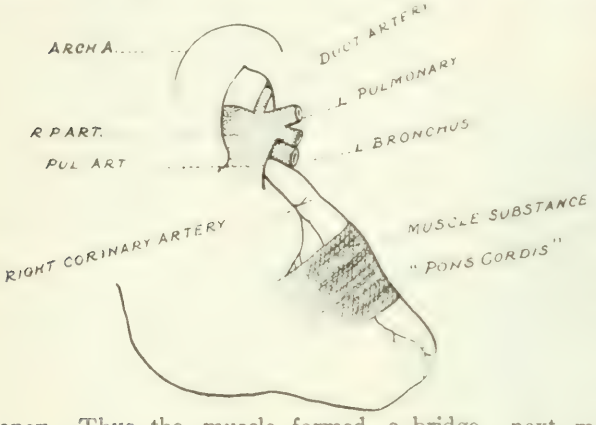
AN INTERESTING ANATOMICAL ANOMALY

The following communication was sent us by a student in the Jefferson Medical College and explains itself:

I am a student at Jefferson Medical College, Philadelphia, and a subscriber of THE AMERICAN JOURNAL OF CLINICAL MEDICINE. While dissecting the thorax of a

white female I discovered an anomaly which I believe is the first of its kind—an anomaly of the coronary artery of the heart.

The coronary artery was found dipping down into the muscle-substance for some distance and then emerging again near the



apex. Thus the muscle formed a bridge over the artery. I gave it the name of pons cordis, or bridge of the heart. No mention has been made of the anomaly in any medical journal, although it was mentioned in our college paper, *The Jeffersonian*, at the time of discovery. The heart is preserved in the laboratory of our college.

RALPH F. LOCKWOOD.

Philadelphia, Pa.

SIXTY YEARS OLD

Dr. Eli G. Jones of Burlington, New Jersey, who has frequently contributed to CLINICAL MEDICINE, writes us that he will be sixty years old on July 26. The Doctor is doing good work and has many friends among the readers of our journal, some of whom will doubtless want to say "Hello", on this occasion, to the Doctor and wish him "many happy returns."

A TETANUS SUGGESTION

As the Fourth of July approaches, the season for the treatment of tetanus also is ushered in. While "one swallow doesn't make a summer," one patient suffering from tetanus, in whose brain there is gas, ought to be enough to teach any surgeon who has once seen such a condition that other cases of tetanus may also have gas in the fissure of Rolando.

I therefore suggest to you, in the interest of humanity and science, that this year surgeons having tetanus to treat will not wait until the patient is dying, as I did, but that they should make a small opening over the Rolando fissure and inject anti-tetanus serum into the fissure, and note particularly the hiss of the gas when it escapes, when the covering of the brain is opened; also the large amount of the cerebral fluid which escapes, and how quickly the spasms cease.

Please call this to the attention of physicians reading your journal next month, as the disease will appear about the Fourth of July.

I think by tapping the spinal canal part of the serum might be injected there.

M. H. EVANS.

Joplin, Mo.

[This is in line with the suggestion made in CLINICAL MEDICINE last year by Dr. W. F. Sterman of Winterset, Iowa. Who can report experience?—ED.]

ST. PETER AT THE GATE

St. Peter stood guard at the golden gate
With a solemn mien and an air sedate,
When up to the top of the golden stair
A man and a woman, ascending there,
Applied for admission. They came and stood
Before St. Peter—so great and good—
In hopes the City of Peace to win,
And asked St. Peter to let them in.

The woman was tall, and lank, and thin,
With a scraggly beard upon her chin.
The man was short, and thick, and stout,
His stomach was built so it rounded out;
His face was pleasant, and all the while
He wore a kindly, and genial smile.
The choirs far off the echoes woke;
And the man kept still while the woman spoke.

"Oh thou who guardest the gate," said she,
"We two come hither, beseeching thee
To let us enter the heavenly land,
And play our harps with the angel band.
Of me, St. Peter, there is no doubt.
There's nothing from heaven to bar me out.

I've been to meeting three times a week,
And almost always I'd rise and speak.

"I've told the sinners about the day
When they'd repent of their evil way.
I've told my neighbors—I've told 'em all—
'Bout Adam and Eve, and the Primal Fall.
I've shown them what they would have to do
If they 'd pass in with the chosen few.
I've marked their path of duty clear—
Laid out the plan for their whole career.

"I've talked and talked to 'em, loud and long,
For my lungs are good and my voice is strong.
So, Good St. Peter, you'll clearly see
The gate of heaven is open for me,
But my old man, I regret to say,
Hasn't walked in exactly the narrow way.
He smokes and he swears, and grave faults he's got.
And I don't know whether he'll pass or not.

"He never would pray with an earnest vim,
Or go to revival, or join in a hymn;
So I had to leave him in sorrow there
While I, with the chosen, united in pray'r.
He ate what the pantry chanced to afford,
While I, in my purity, sang to the Lord,
And if it 'twas cucumbers was all he got,
It's a chance if he merited them or not.

"But, Oh! St. Peter, I love him so,
To the pleasures of heaven please let him go!
I've done enough—a saint I've been.
Won't that atone? Can't you let him in?
By my grim gospel I know 'tis so
That the unrepentant must fry below,
But isn't there some way you can see
That he may enter who's dear to me?

"It's a narrow gospel by which I pray,
But the chosen expect to find some way
Of coaxing, or fooling, or bribing you
So that their relation can amble through.
And, say, St. Peter, it seems to me
This gate isn't kept as it ought to be,
You ought to stand right by the opening there
And never sit down in that easy chair.

"And, say, St. Peter, my sight is dimmed,
But I don't like the way your whiskers are trimmed.
They're cut too wide, and outward toss,
They'd look better narrow and straight across.
Well, we must be going, our crowns to win,
So open, St. Peter, and we'll pass in!"

St. Peter sat quiet and stroked his staff,
But 'spite of his office he had to laugh;
Then said, with a fiery gleam in his eye,
'Who's tending this gateway, you or I?"
And then he arose, in his stature tall,
And pressed a button, upon the wall,
And said to the imp who answered the bell,
"Escort this lady around to hell!"

The man stood still as a piece of stone—
Stood sadly, gloomily there alone.
A life-long, settled idea he had
That his wife was good and he was bad.
He thought if the woman went down below
That he would certainly have to go—
That if she went to the regions dim
There wasn't a ghost of a show for him.

Slowly he turned, by habit bent,
To follow wherever the woman went.
St. Peter, standing on duty there,
Observed that the top of his head was bare.
He called the gentleman back, and said,
"Friend, tell me, how long have you been wed?"
"Thirty years, yes thirty"(with a weary sigh);
And then he thoughtfully added, "Why?"

St. Peter was silent. With head bent down
He raised his hand and scratched his crown.
Then, seeming a different thought to take,
Slowly, sort 'o half to himself, he spake:
"Thirty years, with that woman there?
No wonder the man hasn't any hair!
Swearing is wicked, smoking not good.
He smoked and swore—I should think he would!

"Thirty long years, with that tongue so sharp?
Ho! Angel Gabriel! Give him a harp!
A jewelled harp with a golden string!
Good sir, pass in where the angels sing!
Gabriel, give him a seat alone—
One with a cushion—up near the throne!
Call up some angels to play their best,
Let him enjoy th' music and well-earned rest
See that on finest ambrosia he feeds—
He's had about all the hell he needs;
It isn't just hardly the thing to do
To roast him on earth and in th' future too."

* * * * * * * * * * * * *

They gave him a harp with golden strings,
A glittering robe, and a pair of wings.
And he said, as he entered the Realm of Day,
"Well, this beats cucumbers, anyway!"
And so the Scriptures had come to pass
That "The last shall be first and the first shall be last."

—

[This is submitted by our good friend, Dr. Clifton B. Olds of Fostoria, Ohio, who disowns authorship but is unable to name the author.—ED.]

DIAGNOSTIC AND THERAPEUTIC HELPS

Menstruating women should not take acetanilid or antipyrin.

Spirit of nitrous ether added to antipyrin should change its color to blue and then to dark-green. It's not good if it does not.

If an infant suffers from very painful periosteal hemorrhage, look for evidences of scurvy.

Umbilical bleeding in infants, after the cord has fallen off, means death.

Apoplexy in a child is due to syphilis or embolism from valvular trouble.

A child with fever, a short dry cough and dyspnea has pnemonia.

Be very careful about calling a disease meningitis. First eliminate every other factor that may cause the symptoms.

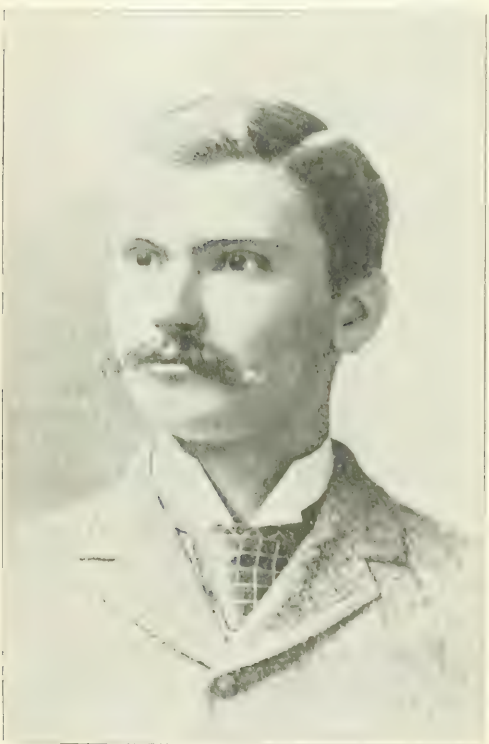
In dropsy try apocynum cannabinum (or apocynin). It removes the fluid rapidly.

Don't bother about the green color of old apomorphine. It's all right.

Arsenic is almost a specific in chorea.

A patien who has continual cold in the head or chest should be put on arsenic.

Never use arsenic in wet skin diseases.



Dr. C. W. Canan, Orkney Springs, Va.

The cases of hay-fever I treated last year with pollantin were all benefited considerably.

To old persons with swollen feet and shortness of breath give arsenic and digitalis.

Arsenic for cutaneous cancer should be used strong or not at all.

Herpes may be caused by the taking of arsenic.

Don't become too sanguine if a patient suffering from arsenic poisoning shows improvement on the hird day.

The rice-wa er stools of arsenic contain blood, those of antimony do not.

An *apparent* improvement often is found in arsenic and phosphorus poisoning and in yellow-fever on the third day.

To try a wet-nurse, press her breast two hours after nursing. The milk should spurt out.

GUSTAF F. HEISEN

Blossburg, Pa.

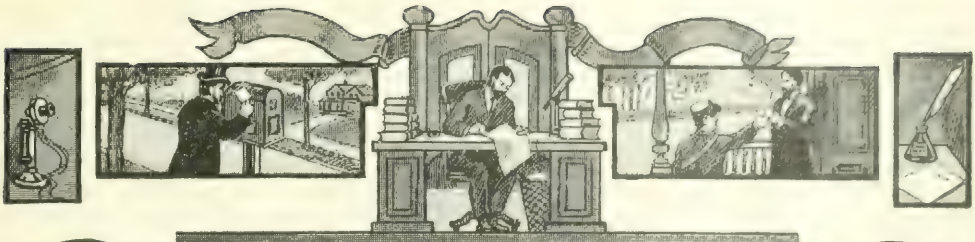
A NICE STUNT BY SOME GOOD FELLOWS

One of the most pleasant features of our stay in St. Louis, during the associated meeting of the A. M. A. and other medical societies, was the delightful automobile ride given the medical editors and their families by Messrs. Thomas P. Haley, Jr., and Fred W. Sultan, of the Peacock Chemical Company and the Sultan Drug Company, on the afternoon of Sunday, June 4. We were taken through miles and miles of the beautiful parks and boulevards of St. Louis, and given an opportunity to see the many splendid homes for which this rapidly growing city is famous.

As to Haley and Sultan—they are royal good fellows! None could be more thoughtful for the pleasure and comfort of their guests than were they. If we did not express our "thank you" to them as warmly as we should—and as we feel—we are glad to have the opportunity to do so now.

HAMPTON'S AND "CHANTECLER"

Rostand's great drama, "Chantecler," has been translated into English, and *Hampton's Magazine* has secured the exclusive rights of publication. The first instalment appeared in the June number. There is no doubt that this is one of the greatest imaginative creations that has appeared in any language. It is to be staged in this country, with Maude Adams as the star. Read it, Doctor, You will find it intensely interesting. And, by the way, keep your eyes on *Hampton's*. It is coming to the front with amazing speed.



CLINICAL MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

George F. Butler, A. M., M. D., Director
Thomas J. Mays, M. D.
C. S. Neiswanger, M. D.
C. E. de M. Sajous, M. D.
William F. Waugh, A. M., M. D.
Alfred S. Burdick, A. B., M. D.

PART III.—LESSON TEN

SCARLET-FEVER

TREATMENT OF SCARLET-FEVER

It must be confessed that all attempts to treat scarlet-fever upon specific lines have hitherto been unattended with success. Many and various have been the drugs for which an abortive action has been claimed—usually, it would seem, upon the strength of a few cases in which the patients had recovered after receiving them. These drugs have been mainly of the antiseptic class, and when their action has been continuously tried in a large series of cases, their superiority over ordinary methods of treatment has been in no way apparent, with the possible exception of one single drug, namely, calcium sulphide.

General Treatment.—The scarlet-fever patient should be placed under the best-possible conditions for recovery. The treatment should be directed to the relief of distress and to combat any symptom which by its severity may prejudice the course of the attack. Moreover, the endeavor should be made to anticipate the appearance of any of the numerous complications to which the scarlatina subject is liable, by carefully watching the case from its very inception up to the termination of convalescence.

The patient should be placed in a room which can be freely ventilated and yet be adequately warm, which can best be effected by means of an open fire, the ingress of fresh air being provided for by keeping the top sashes of the windows more or less open both day and night to an extent proportional to the state of the weather. (During very severe weather moderate draftless ventilation may be secured by fitting a 2-inch slat under the lower sash, thus insuring the passage of air between the upper and lower sashes.) The air of the room should be kept as dry as possible and maintained at a temperature of between 56° and 60° F. A warm temperature is of more importance during convalescence than it is in the acute stage of the disease.

The patient's clothing should be removed (portions at a time) and the body bathed with either a solution of magnesium sulphate (one ounce to the pint of water) or of sodium chloride, to which five or six drops of creolin may be added to each pint. As long as there is fever the surface of the body should be sponged daily with this solution, due care being taken to avoid unnecessary exposure. It is well to give the patient a tepid sponge-bath every evening

as a matter of routine, the action of the skin being thereby increased, the tension lessened, the temperature somewhat reduced, restlessness diminished, and sleep promoted. The bed-clothes should be light and warm, and the mattress should preferably be of horse-hair, supported by a woven-wire undermattress.

During the acute or febrile stage of the disease linen should be worn next to the skin; but after the fever has subsided, flannel may be substituted, or a woolen garment worn throughout the period of convalescence.

The hygiene of the sickroom should be the same as in all infectious diseases. The mouth, throat and nares should be cleansed with an alkaline antiseptic solution, and these parts should be cleansed several times a day throughout the course of the disease.

The Initial Treatment.—When the patient is first seen, a laxative consisting of 1-10 to 1-6 of a grain of calomel, 1-67 to 1-12 of a grain of podophyllotoxin, with 1-12 of a grain of bilein, if thought best, should be exhibited every half to one hour until four to six doses have been taken. Two hours after the last dose a full dose of saline laxative should be given to flush the intestines, which, moreover, acts as a diuretic also. After three or four stools have been passed, a high enema of salt water of 100° F. should be given. The bowels should be encouraged to act daily by means of some mild laxative such as the saline laxative or small doses of calomel. In young children an occasional glycerin enema may be sufficient, while in patients who are getting up a glass of cold water taken first thing in the morning may be all that is required.

Calcium sulphide, 1-6 grain, should be given every hour. If the fever is very high, pulse rapid, arterial tension high and marked congestion, aconitine, 1-134 grain (or smaller doses if the patient is under 5 years of age) should be exhibited every two or three hours. Personally I like the defervescent compound better than anything else for this purpose. These remedies should be given until effect. Usually within twenty-four hours we shall find a reduction of temperature to from 101° to 102° F., a soft and regular pulse, a moist skin, and a reasonably clear tongue.

The patient should now have plenty of liquids: barley water flavored with a little lemon or orange juice acts nicely as a diuretic. A lemonade composed of lemon juice, potassium bitartrate and carbonated water, sweetened with sugar, forms a refreshing and useful beverage.

The urine should be tested daily for albumin, especially during the second and third week. In order to diminish the risk of renal complications and to facilitate peeling, frequent warm baths should be ordered, starting from the day on which the temperature has fallen to normal; if possible they should be given daily.

Period of Recovery.—There is no reason why the recent subjects of mild scarlet-fever should not be allowed to get up at the end of ten days or two weeks, provided no complication has arisen, and due care is taken to avoid chill and undue exertion. Young children, however, may with advantage be kept in bed for three weeks after the appearance of the rash, as they are prone to develop some complications during this period.

If the weather be dry and the patient suitably quiet a moderate amount of outdoor exercise is of distinct benefit. Under these circumstances he may be allowed to go out after having been up for two or three days. If the weather be damp, however, and the patient careless enough to sit about, the practice is then by no means devoid of the risk of renal or glandular complications. For this reason young children should not be allowed to go out of doors unattended.

The Diet during the febrile stage should consist, principally, of milk and beaten-up eggs, but the addition of a little soup, beef tea, mutton or chicken broth forms a welcome variety and will do no harm. As soon as the temperature has fallen, a more solid diet is permissible and bread soaked in milk, custards, milk puddings, lightly boiled eggs, and thin bread (with crust) and butter may be added to the dietary, provided the state of the throat permits of their being swallowed without discomfort.

In the course of two or three days the diet may be extended so as to include fish, poultry and meats. For the first forty-eight hours little or nothing is desired or desirable. Zwieback is always safe, and later stale whole-wheat or graham gems or crackers are allowed.

It has been contended that nitrogenous foods should be withheld during early convalescence from scarlet-fever in order to avoid throwing too much stress upon the kidneys.

In practice, however, there is not much risk in giving nitrogenous foods, and patients will usually suffer no harm if put on such a dietary as I have described above. There is, moreover, no evidence that nephritis has ever been induced by the administration of a diet containing a moderate amount of albuminoids. The desire of the patient himself for solid food is the best criterion of its advisability, and it may be given with confidence as soon as he feels really hungry and able to swallow it without discomfort.

Ripe and succulent fruit may be given at all times throughout the illness. It is not only refreshing but wholesome.

When there is much swelling or ulceration of the throat, especially if attended with tenderness and infiltration of the submaxillary glands, it may be extremely difficult to prevail upon the patient to take his nourishment, and the same thing frequently is true in cases of the toxic type, the patient usually being restless and refractory if not actually delirious. In such cases the food should be administered in small quantities and in as concentrated a form as possible, reliance being then mainly placed upon some of the various meat essences and raw-meat juices.

These two are the only cases in which stimulants are necessary, and even here their use should be cautiously regulated. To a child of five years of age it will rarely be necessary to give brandy or whisky in larger quantities than at the rate of one teaspoonful every hour. Swallowing in some cases may become practically impossible, and it may then become necessary to pass a nasal tube or to feed entirely by the rectum.

Symptomatic Treatment.—When the local irritation of the throat spoken of is present, its treatment is of the utmost importance.

In mild attacks and those of a toxic variety nothing more is necessary than to irrigate the fauces every two hours with some mild alkaline antiseptic solution. In adults the throat may be gargled or sprayed. Local discomfort may be lessened by frequently sucking small pieces of ice; still, in some persons more relief is obtained when the fluid nourishment is taken as hot as it can be borne. Hot fomentations of boric-acid solution should be placed around the throat in all cases where the glands are enlarged and tender. They not only considerably diminish the pain on swallowing, but also appear to favor resolution. Moreover, if suppuration threatens, the process seems to be hastened by these applications.

In septic cases, when the tonsils have begun to ulcerate, or become coated with exudation, more vigorous methods are required. Here it is necessary to apply frequently some powerful antiseptic solution and to cleanse at short intervals the nasopharyngeal passages from offensive accumulation. For the latter purpose a strongly acid solution of potassium chlorate containing a large amount of free chlorine is excellent.

The Chlorine Wash.—This solution is prepared by pouring strong hydrochloric acid upon powdered potassium chlorate in a large stoppered bottle, and afterward shaking up with water. The best proportions are 5 minims of hydrochloric acid to 9 grains of the chlorate, made up with water to one ounce. The resulting solution is of a greenish color and smells strongly of chlorine. (This extemporized and very effective chlorine water, formerly in vogue under the name of euchlorine, is recognized in the present Pharmacopeia as liquor chlori compositus.)

Both the fauces and nares are thoroughly syringed out every two or three hours, according to the severity of the local affections;

a syringe best adapted for the purpose being what is known as a 4-ounce rubber enema bottle and fitted with a hard-rubber nozzle. It is best to employ two syringes at each operation, one being allowed to fill itself in a basin containing about a pint of the solution while the other one is being used, as by the time the latter is emptied the other will be ready charged and consequently there is no loss of time. This latter point is of considerable importance to the patient, the process being by no means pleasant.

This, in my opinion, is the best method in dealing with a septic throat, as the solution, which is strongly antiseptic and astringent, is injected in such a manner as to clean the entire nasofaucial tract of its offensive secretions. No amount of gargling, spraying or swabbing can compare with it in point of efficacy even if the parts be reached. The patient's head should be held over a basin and the mouth kept open. The solution may be injected with some force, as no harm can be done by a stream of fluid, but sufficient time must be allowed for the patient to get a breath between each squeeze of the syringe. The relief obtained is very great and even young children after a sharp experience will often willingly submit to its repetition in view of the comfort which follows.

By frequently irrigating the diseased surface in this manner the local multiplication of pyogenetic and putrefactive organisms is to a great extent held in check, and consequently the chance of an expansion of the ulceration or the appearance of any septic changes is considerably lessened.

Local Septic Complications.—If in spite of everything the cellular tissue in the submaxillary or cervical regions should become the seat of decided infiltrations, it is better to make at once several free incisions into the part affected, rather than to wait for the appearance of definite suppuration. This not only relieves pain and tension, but at the same time provides an escape for the pent-up inflammatory products.

In such cases the presence of actual suppuration often is very difficult to determine. Indeed it may be absent altogether. Frequently, however, an abscess forms under the sternomastoid or beneath the deep cervical fascia. This should be opened at once and a drainage-tube inserted. Afterward hot fomentations of boric acid should be applied and changed frequently.

The Sulphocarbolates for Intestinal Antisepsis.—Sufficient stress cannot be laid upon the necessity for the free and constant use of intestinal antiseptics throughout the entire course of the disease, but, unfortunately, nearly all the effective intestinal antiseptics are prone to cause nausea or gastric irritability. However, the sulphocarbolates are unquestionably the most efficient and cause comparatively less irritation than any of the other antiseptics employed for this purpose.

In the first days of an attack of scarlet-fever we must rely upon the combined salts of sodium, calcium and zinc sulphocarbolates, as found in proper proportions in the well-known intestinal antiseptic tablet, so called. Later, when the intestines are empty and comparatively free from micro-organisms, we may use either the sodium or the calcium sulphocarbolate in doses of 1 to 5 grains three or four times daily, being guided entirely by the state of the bowels.

In case diarrhea exists, we may either return to the triple sulphocarbolates or exhibit zinc sulphocarbolate alone. Sodium is preferable when hyperacidity and flatulence are present; it is also of use when renal complications exist. Calcium is a necessity to the living cell and this salt being almost entirely lacking in the food allowed the sick child, we shall naturally select calcium sulphocarbolate whenever everything progresses satisfactorily and the maintenance of intestinal cleanliness is alone to be considered. The zinc salt is by far the most astringent and at the same time irritating, and it will often be found desirable to stop its use temporarily, giving the calcium and sodium salts alone.

If at any time marked symptoms of intestinal infection occur, the indication for the use of the triple sulphocarbolates in full doses is imperative. Many physicians err

in dropping this medication too early—one or the other of the three salts named should be given until convalescence is well established, one grain one hour after each meal usually proving sufficient.

Insomnia, Restlessness and Delirium are usually associated with a high temperature. For their relief recourse should be had, in the first place, to cold or tepid sponging. If this fails, small doses of codeine or of Waugh's anodyne or sulphonal may be tried in doses proportionate to the patient's needs. Codeine frequently is beneficial but should be used with caution after the middle of the second week, when if any albuminuria is present its employment is contraindicated.

The Treatment of Hyperpyrexia usually is unsatisfactory. Hydrotherapy, such as the application of a cold-pack, may be tried and its effects carefully watched. Usually, however, if calcium sulphide is given continuously, with intestinal antiseptics, the bowels cleaned out thoroughly in the beginning of the attack, and the defervescents used for the first thirty-six to forty-eight hours, we rarely shall have hyperpyrexia. Diarrhea appearing early in the illness had better be left to itself, but when it complicates the late stage of a severe attack it must not be neglected. In ninety-nine cases out of a hundred we shall have no trouble in this respect if the intestinal antiseptics, i. e., the sulphocarbolates, are used judiciously.

Scarlatinal Otitis.—The earache which in some degree usually is present at an early stage should be treated by gently irrigating the affected ear with water as hot as it can be borne. After this a few minims of tincture of opium, or the glycerin of carbolic acid, may be dropped into the canal and a hot fomentation applied over the ear. The instillation of a few drops of a 5-percent solution of cocaine in a weak solution of atropine will sometimes quickly relieve when the former remedies have failed.

Now, no doubt we are told to examine with the oral speculum all cases of otitis media in which suppuration is suspected and if there be any bulging of the drum to incise at once. But in the young children who are almost invariably subject to the scarlatinal affections the external canal is so tender and the caliber so small that we cannot well introduce an oral speculum. In this case it is better to wait until there is undoubted evidence of suppuration, when the drum may be incised. Previous to this operation it is only necessary to relieve the pain by such measures as I have already described.

When otorrhea once is established, it is of paramount importance to keep the middle-ear aseptic. With this object in view the ear should be syringed every three or four hours with some antiseptic solution, like the alkaline antiseptic solution already mentioned, or with a diluted solution of hydrogen peroxide. If after a few weeks' treatment the discharge does not markedly diminish, it is advisable to change the solution to some other possessing greater astringent property. A good substitute is a lotion of carbolic acid, 1 in 40, containing 2 grains to the ounce either of zinc sulphate or copper sulphate, varied occasionally by the use of a weak solution of creolin.

If pain be complained of, attended with tenderness, swelling and redness of the skin over the mastoid bone and the temperature at the same time becomes elevated, active measures should be taken at once to prevent mastoiditis, if possible; but if once established, proper operation should be performed.

It is wise in all cases of otitis media in which an offensive discharge has lasted for more than four months to explore the mastoid antrum for pus, with the object, primarily, of facilitating irrigation of the middle-ear, and ultimately of causing obliteration of the antrum cavity. This should always be done at the time or preliminary steps taken to the complete operation in cases where dead bone can be felt in the middle-ear.

Adenosis.—This affection, when recognized at an early stage, is best treated by the application of hot boric-acid solution or fomentations by which resolution seems frequently to be secured. If suppuration occurs, the abscess should be opened at once

and a drainage-tube inserted. Warm dressings of boric acid should then be applied, while the bowels should be regulated by means of a saline laxative. Where there is suppuration, nuclein will be found of great value, as it stimulates phagocytosis, 10 to 20 drops being given hypodermically twice or even three times daily.

Rheumatism.—In most cases the local application to the affected joints of opium or belladonna liniments, the joints being covered with wool or absorbent cotton, will suffice to relieve the pain. If the joint affection be severe, and in those rare instances in which the cardiac structures become involved, the free exhibition of the salicylates will be attended with the best results, and I have found that in these cases their administration rarely affects the kidneys injuriously.

Should, however, one or more of the joints remain swollen and tender for any length of time and the temperature show no reduction after full doses of sodium salicylate, a little fluid is to be withdrawn from the joints by means of an aseptic hypodermic syringe and examined.

Nephritis and Albuminuria.—When the renal inflammation takes an acute form, as evidenced by the severity of constitutional disturbance and the degree of urinary suppression, the treatment should be mainly directed toward the encouragement of the free action of the other excretories, the skin and bowels, and toward lowering the arterial blood pressure. With these objects in view, a hot-air or steam-bath should be given daily. Free perspiration may be assisted, if necessary, by frequent baths of cold water. In addition, purgatives calculated to produce copious watery evacuations should be given in full doses, and for this purpose either magnesium sulphate or elaterin may be employed. The bowels should be kept loose by repeating the dose, if necessary, daily.

Wet-cupping the loins to the extent of several ounces may be of service in cases in which the suppression is nearly complete. But the employment of dry-cupping or the application of hot fomentations to the loins is not successful as generally considered. The hot-air or steam-baths are especially indicated when the skin acts badly and when there is obvious anasarca, and in these cases a diaphoretic mixture containing ammonium acetate or potassium nitrate and spirit of nitrous ether may be given every three or four hours. I have found that a tea made from German birch leaves acts very beneficially in these cases. I allow my patients to drink as much of it as they will.

The *diet* should consist of milk only, preferably diluted with some soda, lime or barley water; lemonade may also be given freely. Sometimes *vomiting* may prove very troublesome, in which case the milk should be peptonized and administered in small quantities. The *nausea* and retching may be controlled by minute doses of tincture of iodine or bismuth subnitrate.

Most cases of scarlatinal nephritis will progress favorably under the above treatment. The reestablishment of the urinary secretions, attended by a fall in the blood pressure and the disappearance of edema, with temperature returned to normal, are the signs to be looked for.

Then, under the above circumstances, provided the vomiting has ceased, the diet may gradually be extended so as to include bread and butter, farinaceous puddings, and white-fish.

Here, now, is the time at which iron in some form is most useful, and Basham's mixture unquestionably is the best under these circumstances.

When the patient has so far progressed that no signs of nephritis remain other than more or less albuminuria and a certain degree of anemia, the inclusion of two boiled eggs in the dietary will be beneficial. This will tend to replace the albumin which is constantly being passed in the urine, and under the influence of an appreciable amount of coagulated proteid and the free exhibition of Basham's mixture or the triple arsenates of quinine, iron and strychnine, a patient will usually put on flesh and improve in quality of blood with greater rapidity.

Uremic Symptoms.—If at any time uremia threatens, as shown by drowsiness,

headache, vomiting, and, more important still, the slightest suspicion of muscular twitching, the most energetic measures are called for at once. Then one or two drops of croton oil in a teaspoonful of milk should be given immediately, and also 1-10 to 1-6 grain of pilocarpine injected subcutaneously. Then, the patient, well covered with blankets, should at once be placed in a hot-air or steam-bath. If the arterial tension be high, veratrine or 1-100 of a grain of nitroglycerin may be given. But veratrine, in my opinion, is far superior to anything else in these conditions.

The patient must be carefully watched, and if the breathing become embarrassed, through spasm of the glottis or respiratory muscles, chloroform must be administered instantly. A few whiffs usually will restore the respiratory spasm and consequent cyanosis. This should be repeated as many times as may be required. By this use of chloroform not only is any immediate danger removed, but time is given for the other remedies to act. Many victims of uremic convulsions have been saved by its judicious administration.

The Heart in Scarlatinal Nephritis.—During these attacks of nephritis the heart will have to be watched, digitalin, smal doses of glonoin, and *always veratrine*, the hot-pack, besides copious saline enemas will usually be sufficient to oversome these uremic attacks. Cactin and brucine may be required to steady the heart, while in pronounced cases apocynin may turn the tide.

Should acute *pulmonary edema* occur, venesection is unquestionably the best measure; or digitalin may be employed with the object of contracting the pulmonary capillaries.

During the *acute stage* of nephritis and for a week or two afterward, the patient should be kept between blankets. Under no circumstances should he be allowed to get up for at least one month from the onset of the affection. He should, in all cases, be kept ridigly confined in bed until the amount of albumin has fallen to a mere trace; while throughout convalescence as well as for several months afterward, flannel undergarments should be worn constantly. After the patient has been getting out of bed for a week or two, gentle outdoor exercise may be allowed in dry weather, which, if the body be warmly clad, will be of distinct benefit, even though a trace of albumin remains. A few weeks' sojourn at the seaside, will, in most cases, complete the recovery.

Persistent Albuminuria of three or four months' standing probably always points to permanent impairment of at least some portion of the renal tissue, and in these cases residence in a warm, dry climate, with extremely careful habits and strict diet and the treatment which would be indicated for chronic nephritis are indicated.

As convalescence is established, bitter tonics, hydrastin, quassin, juglandin, as also the arsenates with nuclein and a mild glandular stimulant, such as xanthoxylin or iridin, should be given in medium doses three times a day to insure normal metabolic conditions. Calcium lactophosphate should be exhibited for some weeks, to improve nutrition.

GEORGE F. BUTLER.

Chicago, Ill.

PRACTICAL POINTS ABOUT SCARLET FEVER

It is presumed that the readers of this journal have already the usual textbook information concerning scarlet-fever, either in their libraries or stowed away in the gray cells of their cerebra. I shall confine myself here to some observations made in person during the forty years of my medical life.

Scarlet-fever is one of the most contagious of diseases, the liability to it being universal, and by no means ceasing with childhood. The only known reason adults do not take it is that they had the disease during earlier years. The infective power is also more enduring than for any other disease—a case recorded by one of my former students illustrating this:

A woman found in her attic a suit that had lain there for twenty-five years and cut

it down for her son, and in a week he was seized with scarlet-fever. The clothes had belonged to a man who had died of that disease twenty-five years previously, and there was no other possible source of infection. The evidence seemed conclusive that the living entities on which the malady depends had persisted in the clothing for a quarter century.

Scarlet-fever is also one of the most difficult of maladies to eradicate. A case occurred; the unaffected children were sent away; the sick child recovered; and pains were taken to destroy the infection before they returned. The walls and ceiling were scraped, painted with powerful disinfectants and repapered, the floors were scrubbed with carbolic acid, the things used by the sick child burned, and the house was fumigated. On the return of the children they promptly took down with the disease. Going over the case to see where the neglect had been, it was found that the mother, who had assiduously nursed the sick child, had not disinfected or even washed her hair. Unquestionably the virulent germs there deposited were sufficient to transmit the infection.

In the matter of treatment the lesson of my life in scarlet-fever has been the primary importance of pure fresh air. Go through the house and its environment and make everything surgically clean. Cart away the rough dirt and saturate the places where it was with kerosene or gasolin, and apply a match. See especially to the cesspool and the drinking water. Establish ideal regulations in the house and sickroom as to isolation and disinfection. See that the nurse comprehends that the excreta must be left a full hour at least in contact with disinfectant agent before they are disposed of. Most nurses seem to think that mere surface contact suffices by a sort of miracle to destroy the myriads of germs buried in the solid fecal masses. Freshly made whitewash is as good as anything.

Rub the patient's skin every day with pure (or carbolized) petrolatum. It soothes the itching and prevents to some extent the contamination of the room from skin dust. A prolonged bath at the temperature most agreeable to the child should be given once, or oftener, each day. The anointing should follow the bath.

Spray or swab the throat several times each day with saturated solution of salicylic acid, examining solicitously for the first signs of membranous deposit or coryza, which demand the most energetic local treatment at our disposal. The malignant angina is not necessarily or always diphtheritic.

Test the urine for albumin every day, and at the first sign of nephritis put the patient on an exclusive milk diet.

Keep the bowels clear and clean—fecal contamination of the blood can not by any possibility be anything but very injurious. First see that the colon is completely emptied, after which a moderate dose of a saline laxative each morning will suffice.

The specific infectious element should be combated, as was done by Dr. Ussher, by *saturating the patient with calx sulphurata*, and keeping him saturated while the malady endures. The remedy is harmless and has been found effective, by many authors, both as a specific treatment and as a prophylactic.

The leukocytes should be energized and reinforced by the use of nuclein in full doses, or perhaps by pilocarpine, which has not been sufficiently tried in this disease. Its powers as an eliminant should render it especially valuable here, the same as in erysipelas, since the focus of each is in the skin, on which pilocarpine especially acts.

In no other disease does the fever rise so high and yet with so little peril. As a characteristic of scarlet-fever, the treatment of the temperature is of cardinal importance, and aconitine has proved so efficacious that many look on it as in some sense a specific. By its administration the temperature and pulse may readily and safely be restrained within proper limits; and the local action on the inflamed throat is probably of additional value.

Do not trust to mere directions to secure adequate ventilation. Place the window sashes in the middle of the window *and nail*

them together; then cover the spaces at the top and bottom with gauze. This admits air and holds the escaping infection. The gauze must be burned when the case is terminated. The cheese-cloth could be stretched over mosquito-net frames.

Ice and ice-cream are very useful when the throat is sore, and may be given quite frequently, in fact—whenever the child wants them—small quantities at a time.

The additional treatment is that which may be indicated by the symptoms arising in each case. The day is past, I trust, when every patient with any malady is subjected to the same treatment irrespective of the conditions presented. Insomnia may demand a few doses of cicutine hydrobromide, or hebetude direct anxious attention to the eliminants; delirium may need the quieting effect of gelseminine, or debility the incitation of strychnine.

So much can be done in the way of prevention, by early attention to the throat, and later to the kindeys, that the battle is won by forethought. Take any case, shut the child in a hermetically sealed room to prevent "taking cold," leaving fetid or decomposing organic matter about to poison the air that does manage to enter, and you will have a bad form of the disease develop, with complications and sequels added.

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COMMENTS ON THE LESSON

Much of the success of our course is due to the work of Dr. Otto Juettner, who has had charge of the department of physiotherapy. It is therefore with regret that we announce Dr. Juettner's retirement; and we wish to take this occasion to express our own appreciation, as well as that of our students, of the splendid work which he has done for us. Dr. Juettner's fine book, "Physical Therapeutic Methods," is in the hands of many of our readers; and many more should have it. It will be found of service to every student of our course.

Dr. Juettner's place in our faculty will be taken by Dr. C. S. Neiswanger of Chicago, who will be aided in the preparation of copy, along the special lines of hydrotherapy, massage, etc., by his own faculty of the Illinois College of Electro-Therapeutics. In his own special field of electrotherapy there is no better man, no better teacher, than Dr. Neiswanger. We feel highly gratified that we have been enabled to enlist his interest and his help. Succeeding numbers of the lessons will contain his contributions.

One thing we wish to explain again, that there may be no misunderstanding on the part of anyone. The certificate of our course can be obtained only by those who actually study the lessons from month to month and send in their answers, in writing, to Dr. Butler, for grading. This is, and will remain, an evidence of work actually done. It is not a "diploma," and of course carries with it no legal rights or privileges with regard to the practice of medicine. This has been stated before, but seems to need emphasis.

In this number we are collecting a number of "comments" from students on subjects discussed during the past few months, some of them old, but all good.

Last month we had many good things concerning tuberculosis. Every student should read not only the papers in the Post-Graduate Course, but also all the articles on the subject that appeared in that magazine. Then we hope that everyone will help us to enrich the further study of the subject by the recital of personal experiences in the treatment of cases, in the form of very short articles, suitable for use in the "Comments on the Lesson." In this way we should be able to present to our readers a large amount of intensely interesting and helpful material.

We continue to get many letters from our students, telling us that the course is growing in interest. We believe that this is so—thanks very largely to your own cooperation. Meanwhile, let us not rest on our laurels. Help us to make the work constantly stronger and better.

Following are more interesting comments:

Typhoid Delirium.—Dr. John Stuart, of Monon, Ind., whom we have quoted

many times, has the following to say on the treatment of typhoid delirium:

"I have never had a case of delirium in the cases of typhoid I have treated, and I have had a good many cases. I suppose the results I have had arise from the methods of treatment used. The bowels are thoroughly cleansed at the beginning of the treatment. Then the sulphocarbolates are used freely. If the pulse is small and frequent, aconite, combined with echinacea, is given. My reason for giving the aconite is that the small, frequent pulse indicates that the heart is weak and is trying to make up for its lack of power by the frequency of the beat. Aconite in small doses gives power to the heart, while it reduces the fever. If the pulse is full and bounding, indicating irritation, veratrum replaces the aconite. In either case, I get the effect of the echinacea to supplement the sulphocarbolates to prevent the autointoxication or typhointoxication that produces the delirium. I frequently use the double sulphides of calcium and magnesium to destroy the typhoid germs in the blood.

"If I should get a case of delirium I would be inclined to try the method indicated in the text, viz., hyoscine hydrobromide in 1-100-grain doses. As it is, I watch for nervous indications, and if the flushed face and bright eyes begin to appear, I give gelseminine. If the pulse is sharp and quick, I give rhus tox. If coma, or stupor, it would call for belladonna, or its alkaloid. One needs to watch every indication and meet it at once before the symptom is fully developed. It is claimed that cicutine hydrobromide is a remedy of great efficiency for delirium of typhoid. So also apomorphine in small doses."

Malarial Chill.—Dr. W. Herrington, Green City, Mo., says: "If I were called and a patient was having a severe chill with malaria, I would give a hypodermic of morphine and then about one dram of chloroform. I would then put hot irons or water-bottles around the patient and begin to give aconitine, veratrine and strychnine to effect.

"In the comatose patient I would get my hypodermics and administer morphine 1-4, grain, atropine 1-100 grain and strychnine 1-30 grain, and if the body surface was cold and clammy I would wrap it in hot woolen blankets and get all the hot-water bottles and hot irons around the patient I could until reaction. I would then give the most soluble salt of quinine hypodermically and proceed to stimulate the system with tonics, nourishment and nursing."

Cleaning Out the Bowel in Malaria.—Dr. I. N. Brainerd, Alma, Mich., says: "Corruption in the alimentary canal pollutes the blood and favors the development of all diseases by lessening the resistance. In this case it may furnish pabulum for the plasmodia to feed upon. The free use of purgatives and intestinal antiseptics is indicated. We ought to have this pounded into us by this time. But it will bear repeating many times yet."

We certainly should keep this in mind, but we don't always. Given a clean alimentary canal, good digestion and good nutrition generally, and the body not only has more decided immunity to disease, but greater resisting power to it. Absorption of poison from the bowel is enough to make one ill; add this poison to the toxin of malaria or acute disease and the illness may be very severe indeed. The careful physician will eliminate every factor possible which contributes to the severity of the ailment.

Small and Large Doses of Quinine.—Dr. I. N. Brainerd, Alma, Mich., says: "Use the small doses (of the arsenate and hydroferrocyanide) in those stomachs which will not tolerate large doses, and in patients already anemic. Use the large doses in the sthenic cases and in those in which you have been called in only a few hours before the paroxysm is expected."

Solubility of Quinine Salts.—This is given by Dr. Herrington as follows:

"Quinine sulphate, soluble in 720 parts water, 86 parts alcohol; quinine bisulphate, soluble in 8.5 parts water and 18 parts alcohol; quinine hydrobromide, soluble in 40 parts water and 18 parts alcohol; quinine hydrochloride, soluble in 18 parts water and 0.6 parts alcohol; quinine and urea hydrochloride, freely soluble in water."

Injection of Quinine.—Dr. Herrington directs:

"Fill an aseptic syringe with dihydrochloride of quinine, 20 grains in 15 minims distilled water; sterilize same and also the skin where the injection is to be made (this is a full dose of 20 grains); slowly inject the solution and cover the site with an aseptic pad of gauze moistened with alcohol. The buttocks or lumbar region, or between the scapulæ or the hypochondriac regions are the best locations to inject the solution."

The Highest Degree of Fever Observed.—Dr. W. C. Eustis, Owatonna, Minn., reports the following case in reply to Question 6, lesson for October, 1909:

"The highest temperature I have ever observed was 109°F. The condition was diarrhea with some obscure brain trouble, in a baby only a few weeks old. The patient did not live more than twenty-four hours after the high temperature set in. The baby had been ailing for one or two days before I was called. I warned the parents of the nearness of death, and although I quickly reduced the temperature by several degrees, too much harm had already been done, and the child died."

That is a very high temperature, doctor, although in the preagonal stages of diseases, and especially of toxemias, such temperatures are often observed. Vierordt, in his "Medical Diagnosis," English by Stuart, Philadelphia, 1894, p. 62, cites one case of injury to the spine, reported by Teale, which resulted in recovery and had had repeatedly a temperature of 122°F.

On the Danger of Giving Quinine without Previously "Cleaning Out," Dr. W. F. Barron of Carmona, Texas, says:

"Do not give too much quinine with the needle or otherwise. I believe many of the cases die from heart failure brought on by quinine poisoning. Watch and see how very much if not all of the comatose condition is released almost at once after the bowels act well. It is well to empty the stomach too, with apomorphine, if there be any cause to think it full also.

"Usually these patients are 'noble eaters' as the negroes say. Malaria seems to have that effect on the appetite making it abnormal. These chills may come on an hour or so after a hearty meal and your case will almost invariably clear up if you get rid of this and other meals eaten in the past.

"In giving quinine do not forget the fable of the bear, the fly and his sleeping master. The bear killed the fly all right and his master at the same time. It is well to remember here small doses repeated to effect and then stop or lengthen out."

Treatment of Bronchitis.—Dr. F. F. Attix of Lewistown, Mont, has the following to say regarding his method of treating acute bronchitis. It will be noticed that most physicians who are successful in the treatment of this disease and who have confidence in their ability to carry the case through to a successful termination, employ about the same line of treatment:

"I treat acute bronchitis in the following manner:

"1. Order the patient to bed in a suitable place.

"2. A hot tub-bath of ten minutes' duration.

"3. Return to bed, cover with plenty of blankets, give a hot lemonade and thereby induce free diaphoresis.

"4. In an hour or two, the bedding and gown are changed, the body thoroughly dried and massaged. Calomel gr. 1-6, and podophyllin, gr. 1-6 every half hour for four to six doses, followed by salines to empty the *primæ viæ*.

"5. Give amorphous aconitine, gr. 1-134, 'to effect.' This will soften the pulse, reduce the fever and tend to relieve localized congestion. It may be combined with small doses of atropine, codeine or morphine to advantage, according to indications. Pilocarpine may be given in small frequently repeated doses to promote diaphoresis if the other measures fail.

"If threatened with severe congestions, I employ measures similar to those I use in the abortive treatment of pneumonia (stage of hyperemia). The secretions may be loosened by inhaling steam vapor containing benzoin compound or balsam peru. The chest should have local applications

of camphorated oil. Internally emetine, lobelin, apomorphine, hydrochloric acid and potassium citrate.

"If secretion is profuse ammonium chloride, oil of turpentine, cubebs or copaiba are indicated.

"Where there is a tendency to retention of secretions or edema of the lungs a mild emetic is indicated."

Another Method of Treating Bronchitis.—Dr. B. F. Harding of Mansfield, Ohio, has an interesting paper on the treatment of bronchitis, and gives his method of treating acute bronchitis as follows:

"The treatment of acute bronchitis should largely depend upon the cause, but I venture the statement that the majority of physicians overlook this point or factor. Perhaps some of us are not prepared to make the proper examinations for the germ that is causing it, and others may jump at the conclusions and prescribe regardless; let that be as it may, it is at times a very difficult disease to control, do the best we can.

"No doubt the proper thing is to know that the intestinal tract is clear, and keep it that way; for which I give small doses of calomel to be followed by a saline laxative, and each morning thereafter follow with the saline. I treat symptomatically. During the acute stage I control the fever by aconitine and bryonin, if the fever is of short duration I start with calcidin, and if it is called for I give emetine. I find that calcidin covers a large field in the treatment of bronchitis, and very often nothing more is required.

"When it assumes a chronic type I change my mode of treatment to meet the conditions. I find that apomorphine in small doses acts nicely as an expectorant; if the secretions smell bad, I give small doses of iodoform; in plethoric persons during the fever I usually give veratrine. I have used the different salts of ammonia, also iodides, but the line I have given you serves me better and the patients are better satisfied, and that is a thing to be considered nowadays.

"I control the nervous condition with cicutine and hyoscyamine. Do not forget to use small doses of strychnine during the course of treatment. When the acute stage is past I add to this or substitute for it the arsenates of iron, quinine and strychnine. Under some conditions I may add nuclein to the strychnine.

"I believe that this past winter I aborted a case of chronic bronchitis in an old lady, feeble in body and mind, who had had for the past twenty years either an attack of what is called winter bronchitis or more often an acute case of pneumonia. I gave her the triple arsenates in December last, combined with nuclein. She has taken 1000 tablets and has passed the winter without either the bronchitis or a sign of it. I speak of my mother, who has been troubled for twenty years, and only two years ago was confined to her bed for five months, the results of pneumonia and bronchitis as a complication.

"In elderly persons the right heart feels the strain of the excessive coughing, the increased tension in the pulmonary circuit becomes marked, causing a circulatory embarrassment in other organs (stomach, liver, and kidneys). Pulmonary emphysema and bronchiectasis are sequelæ encountered; exacerbations are readily excited and prone to leave increased organic changes."

EXAMINATION QUESTIONS

1. What in your opinion is the essential cause of scarlet-fever? Give your experience with regard to its degree of contagiousness, citing a case or cases.

2. Do you think it possible to prevent scarlet fever after exposure, and how would you undertake to do this?

3. Outline a rational plan of diet.

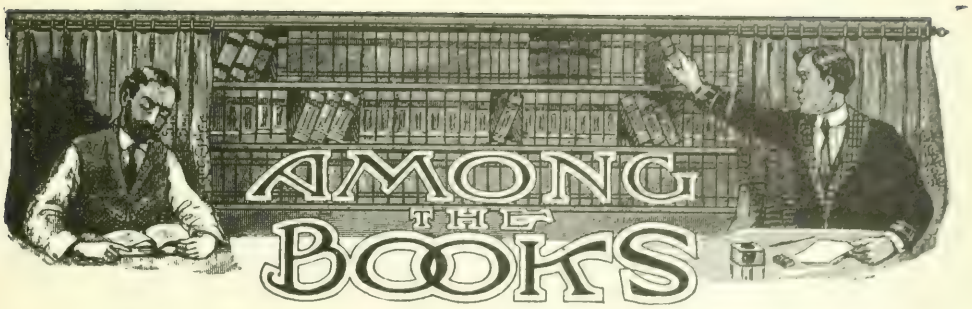
4. What is the most common cause of scarlatinal nephritis? Do you think exposure or alimentary putrefaction most likely to produce kidney complications?

5. What percentage of deafness have you seen in your own cases? How do you treat cases of otorrhea?

6. Describe the scarlatinal tongue and the scarlatinal sore throat. Give treatment for the latter.

7. Why should calcium sulphide be given in these cases? Why nuclein? When would you give pilocarpine? When iron—and in what form? When aconitine, and in what combinations?

8. Describe one case of scarlet-fever occurring in your own practice, telling how it was treated.



"WEBSTER'S DICTIONARY"

Webster's New International Dictionary of the English Language, based on the International Dictionary of 1890 and 1900. Now completely revised in all departments. Including also a Dictionary of Geography and Biography. W. F. Harris, Ph. D., LL. D., Editor in Chief; F. Sturges Allen, General Editor, Springfield, Mass. G. & C. Merriam Company. 1910.

Webster's Dictionary is not Webster's Dictionary—this at least is what plodding, good old Noah Webster would say could he stand today before that ponderous tome sanctified by his name. For scarce has a generation familiarized itself with an augmented improved edition, then another still larger, still better edition, and yet another makes its appearance.

And so now the ever-alert publishers have given to the world a book practically new from cover to cover, radically different in its plan from anything ever before ventured, and designed to be the most complete and perfect dictionary of the English language that the most scholarly men, through many years of hard labor and aided by the lavish expenditure of money, can produce.

Limited to space, the reviewer regretfully refrains from going into details, leaving it to every interested reader to procure for himself full descriptive literature, contenting himself with merely pointing out the most salient features of this, the most recent edition. "Edition" really is not the proper appellation, for it is in truth a new dictionary on entirely novel lines—an experiment one might be inclined to say, were it not that the editorial staff, basing on their own experience of good six years in developing the idea, vouch for the practicability and great value in actual use of the new and at first blush startling plan.

Very briefly, this new arrangement consists in interweaving a preponderating proportion of matter hitherto found in the increasingly cumbrous appendix with the regular word list. But since this, together with the enormous addition of new terms incorporated, would have made the single-volume scheme impossible, the lexiographic page was divided into an upper and a lower section, distinguished by different-size type, according to the following principle: The several vocabularies formerly given separately—foreign phrases and proverbs, scripture names, names of fictitious persons, abbreviations—have been incorporated with the general vocabulary. Every page now contains all the titles that fall alphabetically between the first and last title words. To the lower section of the page are relegated the foreign phrases, abbreviations, etc.; also words wholly obsolete, obsolete variants, uncommon dialect words, scientific terms of rare occurrence, words defined only by a cross reference, and in general that part of the vocabulary in most infrequent use.

The reviewer is rather favorably impressed with this novel scheme. At any rate, the unwieldly and annoying supplement has been reduced to a few topics, viz., the gazetteer, a biographical dictionary, arbitrary signs, and the collated illustrations. Then further to provide room for the more than 400,000 vocabulary words, and some 6000 illustrations, about 450 pages were

added, the size was a little enlarged, and slightly thinner yet better paper selected, while condensation of phraseology was rigorously practised.

It is out of the question here to enumerate the plan of revision and new ideas developed, suffice to say, that this great work, the beloved of all good Americans, is up to date in all respects and a safe guide to every literary worker, and as much beyond the now "old" International as was that compared with the once supreme Unabridged. Everything has been thoroughly overhauled—pronunciation, etymology, definitions, historical principle, quotations, synonymy, and so on—all has been submitted to critical examination by competent specialists, with Ex-Commissioner of Education, W. T. Harris, at the head. One gratifying feature observed is, that this exponent of careful conservatism has in a measure yielded to the progressive radical spirit of the times in making concessions to the pressure of a demand in philological and other circles for a rational spelling of the language, showing that the former active opposition to this movement gradually but surely is breaking down. *En passant:* it seems odd to find in the vocabulary "Dowieite" and "Babism," and absolutely no recognition of "Eddyism." One particularly commendable feature of the ponderous volume is the absence of heavy plate pages which unpleasantly interfere with rapid work.

The reviewer cannot close this altogether too incomplete notice without a reference to introductory chapters of this book, covering a history of the English language, a guide to pronunciation, and rules of spelling. These chapters have always been there—but how many persons ever think of looking at, much less studying them. And, yet, they are of the highest educational value, and in fact should be systematically studied in all our schools above the fourth grade. One more word. How many people using a dictionary—including doctors—realize the enormous amount of solid knowledge that can be gained from the persistent intelligent use of a good dictionary, which is a veritable storehouse of information, a condensed cyclopedia, and many a time taking the place of textbooks for which one pines or in which the desired information is hopelessly buried for the busy man? It is an unpardonable mistake to consult the dictionary merely for correct spelling of pronunciation, but everything put down should be digested and then further clews suggested chased up to the end. When the mind is interested, then is when it learns.

BACON'S "OTOLOGY"

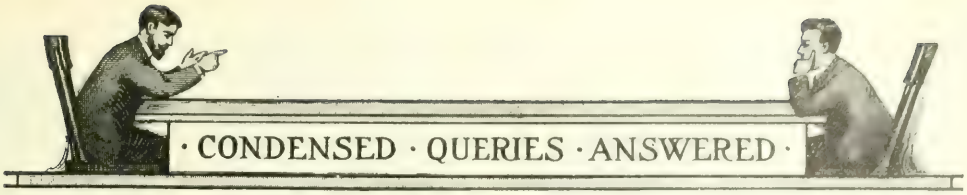
A Manual of Otology. By Gorham Bacon, A. B., M. D. Fifth revised and enlarged edition. With illustrations and plates. Philadelphia: Lea & Febiger. 1909. Price $2.25.

In our review of the fourth edition of this book in these pages (1907, p. 256) the following language occurs: "This is no book for self-instruction, nor for that matter is any book on the anatomy and diseases of the ear, but as a manual for a student while attending lectures and clinics on otology this well written and felicitously brief and yet clear manual seems to be just the book. And the physician, too, who has not forgotten what he has learned of otology in the medical school will find this book very helpful, up to date and memory-refreshing." And this encomium we can conscientiously repeat with regard to the present edition.

BURNETT'S "HUMAN PEARLS"

Human Pearls. By Francis Eaton Burnett, D. D. S. Chicago: R. R. Donnelly & Sons, Printers. 1908.

A bright, readable little book of 86 pages, fully illustrated, which gives much valuable information to parents on the anatomy, physiology and the care of teeth. The book is not only a useful guide, to be loaned to patients by dental practitioners, but the family physician also should possess all the information contained in it, and might find it a grateful task to pass it on to the mothers of his little patients and charges.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5599.—"Is It Enteralgia?" S. J. B., Texas, has been treating, for three months, a girl about six years old for enteralgia or some such trouble, but with little success. Before this she had been treated by five or six doctors for worms, but with absolutely no results. The child seems to be healthy and normal in every other way; sleeps well, has a fine appetite, kidney and bowel action are regular, sight is well developed, no abnormal tendencies are discernable. Good health and development characterize parentage on both sides. She has had what her mother calls "bad spells" for about a year.

Two or three times a day, sometimes, or again, two or three times a week, irregularly and irrespective of what or when she eats, she runs in, places her hand over the umbilicus and cries out with pain. During these spells, which last from two to five minutes, she falls on the bed or floor in agony. They pass off, and the girl is up and out at play, apparently as well as ever, till another spell comes on. While these attacks are always noticed first about the navel, they radiate to the right or left side, generally. Of late they have been coming on more frequently, often early in the morning before getting up.

Sometimes while the spell is on she looks pale, almost white, about the mouth. After thoroughly disinfecting the bowels with the intestinal antiseptic, a little whitish mucus was seen to be in the stools. These are the only diagnostic symptoms discovered. Temperature and pulse both are normal.

Various drugs were tried, including chlorodyne, atropine, hyoscyamine, cascara, strychnine, "salts." The doctor has carefully dieted the patient, giving special attention to quantity, quality and variety of food, time for mastication, not neglecting water, cleanliness, etc. Her parents are well-to-do intelligent farmers and the child has plenty of exercise in the open. This is the description.

To begin with, we advise reading with care the editorial in THE AMERICAN JOURNAL OF CLINICAL MEDICINE, April, page 371, entitled "Some Facts About Anaphylaxis." This case may quite possibly be due to ingestion of some albuminous food. Inquire into the diet, especially note frequency with which the child consumes eggs. In addition, however, it is essential to have more definite clinical data before venturing a diagnosis.

First and foremost, granting that the personal history is negative and worms are excluded, it is necessary to know the weight of the child, conditions of abdominal organs as revealed by palpation, percussion, etc. Was the child breast-fed? Was there any digestive trouble in infancy? Or any sign of abnormal appetite? Does the little one prefer any particular article of diet or food more than other kind? Does she eat too rapidly, bolting large morsels of food? Any collection of gas, belching, regurgitation of sour fluids? Have you ever washed out the stomach or had the feces and urine examined? Much light could be gained by the report of a competent pathologist on stomach washings and excretions. Suppose you have the patient fast absolutely for twenty-four hours and see whether the at-

tacks cease; also, when an attack occurs induce vomiting to discover whether relief follows.

One must remember the possibility of a masked appendicitis or of imperfect intussusception or slight twist or dragging of the intestine. If the trouble is gastric it would seem to be in the pyloric region, but more probably is duodenal in character. If there is any sign of pancreatic involvement small doses of adrenalin, berberine and arsenic iodide suggest themselves. Are there prodromata? If so, carefully describe the symptoms. At any rate, we suggest giving high enemata, small doses of olive oil, adding one drop of cajuput oil to the dram, faradization of the gastric and duodenal region; the antispasmodic formula, H-M-C (dose to suit age), or a full dose of apomorphine may be tried at the time of attack.

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QUERY 5600.—"The Fourth Disease." C. S. M., Illinois, is up against a new disease in the shape of an infectious fever, and he reports a few cases. The doctor can find nothing about the malady in any of the books or journals at his command. "Osler, Tyson, Pepper, 'The Reference Hand Book,'" he writes, "have nothing, and 'Progressive Medicine' only a few lines on 'Fourth' and 'Fifth' diseases—nothing at all on the diagnosis and symptoms."

"Case 1. Perline M., age 12. Was called April 4. The girl had had measles three weeks before, but again attended school. On April 2 she 'was feeling mean,' experiencing dull pains in back, legs and head. (Autoinfection.) The following day there developed a rash on the chest, fine, discreet, not quite as small as of scarlet-fever, but smaller than of measles; no redness in between. She had neither cough, coryza, nor Koplik spots, and the tongue indicated nothing but a liver 'gone on a strike'—light-yellow, furred, a condition that cleaned up in one day after calomel and podophyllin. The rash extended up the right and to the elbow on left arm, and a few appeared on the thighs and buttocks. None, or only a very few, showed on the face. There was some itching (allayed by magnesium-sulphate baths), and her temperature was 100° F. in the afternoon. Pulse normal. Bowels same as in health; kidneys also. In contradistinction to scarlet-fever, there was no sore throat at any time, nor enlarged lymphatics of the jaw or neck. She had no nausea or vomiting, and but very little fever. The rash faded on the second day under calcium sulphide, 1-2 grain, every hour the first five times, then every three hours. She was up and around on the third day; in fact, she never was sick enough to stay in bed.

"Case 2. Irene, cousin of the foregoing, attending school in the same room, came down on April 6. Her case was practically identical. She had had measles one month before.

"Case 3. Blanche, age 18, came down April 13. She fainted in the bath-room, but had regained consciousness before I arrived. The rash was the same as in Case 1, only that it extended over the whole body excepting the face. Her temperature was 102.5 °F. at 10 a. m. The eruption faded on the 15th, and the girl went back to school. She had measles when a child.

"Case 4. Dot S., age 20, sister to Blanche, just mentioned. She had had measles when a child. I was called on April 27, fourteen days after case 3, and found the same rash, only not so severe. Chest, front and back were covered; arms showed a few spots, legs none. Her mother had been giving her hot ginger tea and whisky to bring out the eruption, but no more would come out. It faded the next day and the patient was up and around.

"Case 5. Clifford, age 12, came down with measles on April 11, which ran their course and cleaned up nicely. On April 29 I was called again and found another case, similar to the above. This lasted two days and the patient recovered nicely, except for a dry, scaly eruption around both wrists, worse on right, half way to the elbow and down to the knuckles.

"Case 6. Warner L., age 11, going to school with patient No. 3, in the same room. I was called May 3, and found his chest covered front and back. There were a

few spots on the arms down to the elbows, none on face or legs, none in the mouth, and there were neither eye symptoms, nose trouble, or cough. I told him to stay in bed one day at least, then to get up if he wanted to. He had measles when a child.

"Case 7. Mildred L., age 12, had had scarlet-fever in January, 1908; never had the measles. The rash developed on May 6, on the 8th it was all cleared up, no signs of anything remaining.

"Case 8. Laura S., age 5. I saw her this morning, finding the same rash as in the other cases. She had been exposed and slept with measles-patients about a month ago, but did not take them. She says, 'The Lord thinks I am too nice a girl to have measles.' She is not sick at all, is up playing about the house.

"To sum up: Patients Nos. 1, 2, 3, 4, 5, 6 had had measles recently or a few years ago. No. 7 had had scarlet-fever, but not measles. No. 8 had never had any children's diseases. All showed the same rash, coming up on the chest first, extending down the arms and legs, very little upon the face.

"In No. 3, especially, there was no coryza, no cough, and bowels and kidneys were normal. No sore throat, nausea or vomiting; no glandular enlargement.

"The next one that shows up with a typical rash I shall snap with a camera and send the photographs to you. Neither measles nor scarlet-fever seem to produce immunity to this disease. I am watching a bunch of about forty people that were at a party the night before No. 6 took sick. They ought to show up some cases within the next few days.

"What is it? I do not know. Have seen all the infectious fevers common to our country, but fail to tag this one. I know how to get rid of it in two days with my treatment, but it cleans up in five or six days without interference. Is it the 'fourth disease?' Or is it the 'fifth disease' that the English have just isolated and tagged? I hate to tell every family 'I don't know' when I run across a new one, as I have the last month. But I told them I should try to find out, and I know no better place than THE AMERICAN JOURNAL OF CLINICAL MEDICINE. Maybe somebody else has run across the same thing and named it."

We note with interest your experience with this "untagged infectious disease." As a matter of fact, Doctor, you have undoubtedly to deal with the "fourth disease," an eruption of brief character due in nearly every instance to autointoxication. Not infrequently the disorder resembles rötheln; while sometimes the patient may be treated for urticaria or erythema mutiforma. The character of the eruption may vary and the symptoms differ quite materially, but in every case a thorough clean-up of the intestinal tract will cause the prompt return of normal conditions.

In the "fourth disease" the eruption most frequently resembles that of scarlatina; there is, however, little or no fever, slight abnormality of the pulse-rate, no vomiting, no angina, no involvement of the lymphatics, and no desquamation. Simpson observed the affection several times after scarlatina, and also after measles. The Query Editor has seen three or four cases (the clinical picture resembling precisely that presented above), and in each instance the child had recovered less than a month from a well-defined attack of rubella.

It is our belief that the systemic toxemia persists in a modified degree long after the desquamative period of scarlatina and measles had passed; there is more or less autotoxemia; the skin is peculiarly susceptible, and the nervous system irritable to a degree. Very slight causes then (change in the weather, the ingestion of certain articles of food, etc.) might suffice to set up the conditions ascribed to the socalled "fourth disease."

In England the usual treatment consists in giving several doses of gray powder and quinine. Unquestionably a course of calomel and podophyllin followed by laxative salines and the sulphocarbolates would prove the most efficient immediate medication, but we should feel disposed to put all these children also upon iridin and the arsenates, continuing the treatment for a month at least. At the same time we should watch

their diet carefully, order abundant open air, an occasional salt sponge-bath, and, whenever possible, send them away for an entire change of air and surroundings. Whether the "fourth disease" can manifest itself *de novo* is an open question.

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QUERY 5601.—"Thiosinamin and Its Uses." W. H. P., Massachusetts, writes for information concerning thiosinamin. He has two cases in which he would like to try it. One is that of a girl of 10 years, physical condition excellent, who has a long cicatrix extending diagonally across her left cheek. The second case is that of a man, 45 years of age, whose condition is good. It is an old scar, from a razor cut, extending from ear to ear.

Thiosinamin is a powerful resolvent of cicatricial tissue. The best results follow its hypodermic use. A standard solution of thiosinamin contains, per ounce, 75 grains of thiosinamin in a stable, sterile, glycerino-aqueous solution. The dose is 6 to 12 minims of the solution (2 grains thiosinamin) given by injection (parenchymatous or subcutaneous) every second or third day. Internally, 5 to 10 drops of the solution are given twice daily in a weak alcoholic vehicle. (This is imperative.) Murky solutions, showing precipitation, are dangerous.

The solution of thiosinamin may be injected into loose connective or muscular tissue with little or no pain. It is indicated as a resolvent, in stricture, corneal opacity, deafness due to adhesions, lupus, glandular tumors, and to remove cicatricial masses and adhesions wherever situated. Keloid has yielded to its persistent use.

Whenever thiosinamin is administered, elimination should be stimulated, and arsenic in some form (preferably the iodide) be given in fairly full doses, say 1-67 grain one or two times a day.

Caution: Cleanse the skin over the part to be punctured (the glutei or loose tissues of the abdomen) with alcohol. Draw the amount of solution to be used into (preferably) a glass-barreled syringe, attach the needle, wipe it with alcohol or pass through a flame, then insert the point and inject slowly. Do not massage the part. Inject alternately on opposite sides of the body, every second or third day, or at longer intervals.

Very satisfactory results should follow the use of thiosinamin in the cases described. We would be inclined to give internally iridin and alnuin, of each 1-6 grain, between meals, and arsenic iodide, 1-67 grain, after meals. Apply, at night, a saturated solution of magnesium sulphate to the cicatricial area.

In the man of 45 you can hardly expect to get entirely rid of the scar. In the other case very excellent results may be looked for provided the treatment is pushed.

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QUERY 5602.—"Berberine in Diarrhea with Enuresis." A. R., New York, has tried berberine in a case of chronic diarrhea connected with enuresis. He was anxious to get results, as the patient had puzzled many clinicians. The drug was given for a week, but with absolutely no results. He asks for our opinion.

We have never suggested berberine as a remedy for diarrhea. Hydrastin with geraniin, cotoin, tannic acid, or the zinc salts are recommended as astringents. Berberine acts upon the mucosa somewhat, it is true, but it is given chiefly to relieve splenic congestion. Moreover, in large doses it may exert a *laxative* action. Hydrastin would have been preferable.

You do not give us any idea of the cause of the enuresis. Medication which proves effective in one case may be entirely useless in another. Very careful diagnosis is essential. Enuresis nocturna and diurna rarely exist together. If they do, we have to deal with a neurosis, as a rule, with increased irritability in the musculature and hyperesthesia of the vesical sphincter.

Before instituting treatment it is necessary to examine the patient, then also the urine. Indigestion, worms, spinal disease, eye strain, and half a hundred other conditions, may cause enuresis.

If no distinct abnormality can be discovered we must look upon the patient as functionating abnormally and improve the

tone of the nervous system. Atropine, brucine and hydrastin often prove efficient. Thuja may be added with benefit. Occasionally extract of rhus aromatica will put an end to an otherwise intractable condition. In atonic cases ergotin and rhus tox. may be given every three or four hours alternately in connection with brucine, hydrastin and atropine valerianate. The cause of the diarrhea, in this case, must also be doscovered and removed.

The success of the positive therapeutist, we must remember, is due to the fact that he diagnoses closely and then gives the right remedy for the condition present, using, in small doses to effect, remedial or physiological. We are not surprised, therefore, at your failure to secure results from berberine in this particular instance; it was not indicated. You may rest assured that the indicated drugs, pushed to effect, would have produced remedial results.

If you care to send a specimen of stool and urine, together with clinical data, we shall be pleased to outline therapeutic procedures. We are writing just as frankly as we should talk with you face to face. We want you to realize, Doctor, the extreme dependability and therapeutic efficacy of the alkaloids when correctly used.

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QUERY 5603.—"Vitiligo." E. L. M., Iowa, has under treatment a case of vitiligo affecting the hands and the wrists. The lesions are very unsightly and cause the patient considerable worry. The doctor has corresponded with several specialists concerning this case, but without satisfactory result. He now desires to obtain some stain which will color the skin the same shade throughout. Very white spots now adjoin dark-brown ones. He has tried, he says, iodine and silver nitrate, but the contrast is just as bad.

Perhaps the juice of green walnut shells would prove the most satisfactory application for staining the skin a uniform brown, but it is not always possible to obtain it. By the way, have hypodermic injections of pilocarpine and the internal exhibition of the arsenates in rather full doses been given a trial? Exfoliation of the skin may be secured by the use of oil of turpentine applied four or five nights in succession. Marked improvement sometimes follows this procedure.

Another suggestion is to have the patient get his hands thoroughly sunburned. If it is at all possible send him on a fishing expedition in July. Tell him not to be afraid of exposing his arms to the elbow. If he wets his hands and wrists every hour or so the results will be better. Somewhat the same effect may be obtained by the use of the leucodescent lamp or Finsen rays.

It is an unfortunate fact that a cure for vitiligo has not as yet been discovered—at least not to our knowledge. Iodine and silver nitrate, as the doctor has found out, are worse than nothing at all. We present the matter to the "family," hoping that someone may be able to offer a useful suggestion.

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QUERY 5604.—"Mucous Colitis." A. B. W., Virginia, asks us to suggest treatment for a patient, male, 45 years old, who has mucous colitis of several months' standing. He has been under his treatment for some weeks, but does not improve. Temperature and pulse are normal; tongue is very red, mouth dry; bowels are distended; stools are thin and watery, containing considerable mucus; there is soreness over the entire course of the colon; appetite is very poor.

In order to prescribe effectively we should have a report from our pathologist upon specimens of the feces and urine; moreover, we have not enough clinical data to enable us to form an exact idea of the extent of the disorder.

Mucous colitis may be of a neurotic type or purely imflammatory in character. Nervous instability almost always exists, while not infrequently there is gastric hypersecretion or hyperchlorhydria. Clinicans are beginning to believe that the arthritic diathesis is present in nearly every case of mucomembranous enteritis. It is quite possible that intestinal indigestion with the resultant autointoxication sets up the neurasthenic condition which accompanies or is

the cause of mucous colitis. Our correspondent does not mention the presence of constipation.

In most cases of mucous colitis we have obstinate attacks of constipation followed by paroxysms of pain and passage of thin or mucus-covered stools. Even when there is diarrhea there will be more or less fecal stasis with accumulation of fecal matter in the intestines, and which is rarely, if ever, entirely removed. The stools may be ribbon-like or the size of a lead pencil evidencing spasmodic contraction); or hardened scybala or masses, in some cases markedly resembling sheep dung, are passed; then, again, the stools are formless, consisting of glairy mucus mixed with feces; in still other cases the stools will be coated with mucus, not infrequently tough strings of mucus being voided alone. More rarely casts of the bowels are evacuated. Pain, as a rule, accompanies each movement of the bowel. It is sudden in onset, extremely severe, and usually accompanied by a distinct sense of faintness. Attacks of diarrhea appear at varying intervals covering periods of several hours or even days and are almost invariably followed by marked constipation.

The best basal treatment we know of is outlined herewith:

Throw into the bowel (the patient in the knee-chest position) 4 ounces of olive oil to which has been added 5 minims of eucalyptol, then inject slowly 3 to 4 pints of warm decinormal salt solution and have this retained as long as possible. Repeat these enemata every second or third day. Give internally atropine sulphate three times a day, with hydrastin and eupurpurin. In some few cases hyoscyamine acts better than atropine. After a few days the atropine dosage may be reduced to 1-1000 of a grain, preferably in solution. Before meals the patient should receive juglandin and strychnine, and an hour after food, bilein with pancreatin and sodium sulphocarbolate. In very obstinate cases 4 to 8 ounces of olive oil may be injected into the bowel at bedtime, to be retained through the night.

The diet necessarily depends to a great extent upon the conditions present. Van Noorden places the patient, in addition to large quantities of fats, upon foods containing a large proportion of indigestible residue, such as graham bread and leguminous foods, vegetables containing cellulose, fruit with small seeds and thin skins. This coarse diet works beautifully in the majority of cases, but if there is any blood or pus in the stools, and the periods of constipation are absent, it will be well to prescribe for a time mainly farinaceous foods, purées, gruels with cream, plenty of butter, and other carbohydrates; the idea, of course, being to exercise as slightly as possible the motor function of the intestine while at the same time nourishing the patient thoroughly.

In a few cases sodium sulphocarbolate somewhat irritates the intestine. In such instances copper arsenite is the remedy of choice, 1-1000 of a grain being given four times daily. Nuclein (5 to 6 minims, absorbed through the buccal mucosa, morning and night) will always prove beneficial.

If the patient does not respond promptly to this course of treatment, send specimens of stool and urine to the laboratory, furnishing a clear clinical picture.

QUERY 5605.—"Dribbling of Urine." A. L. W., Wisconsin, requests treatment for a patient who, he says, is healthy in every way, "but the clothing around the penis is wet most of the time after passing water, some urine seeming to dribble away."

As we have stated so often, before we can prescribe we must have an idea as to the age and condition of the patient. If a child, think of worms. Carefully examine the rectum and prepuce, and also submit to the laboratory a specimen of urine. By all means give a clear clinical picture. We may then be in position to offer intelligent therapeutic suggestions.

Atony of the vesical sphincter may exist in an older patient. Here strychnine and cantharidin with arbutin and hydrastin prove the most effective remedies.

Cystitis would require entirely different treatment. Hyperacidity or alkalinity of urine must, of course, be recognized and corrected.

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Give Us Efficiency

TO every man and woman in this world is assigned a place in the scheme of humanity. It may be a lofty place or a lowly one. Nevertheless there comes a place to each of us which nobody can fill but ourselves—at least nobody can fill it so well. That place is exactly the one in which each of us finds himself or herself. Suppose we sit down and take a quiet five-minutes of thought over the significance of this proposition.

If this place which I am filling is mine, I can fill it better than anybody else. Am I doing so? Am I filling it to the very best that is in me? Can I not by taking thought devise some means of doing my daily duties a little better, a little more effectively, a little more productively than I have in the past?

If I can do this I am a better man in my position than I have been in the past, and if people get to understand that I am a little better, it may be that in this way I shall prove myself worthy of even a better position than would otherwise have been assigned me.

This world is in crying need of more efficient workers in every line. We want people who will turn out better work, more perfect work, more of it in shorter time. We want people who will appreciate modern needs, and the modern methods of meeting them, and apply the latter with the effectiveness the times require. We want men and women who will every day think, for a few minutes at least, of how they can accomplish their duties more effectively. What a benefactor to his race would be the man who could induce all humanity to take five minutes daily to devote to thought along this line.

Here is a factory with one thousand employees: Five minutes' thought daily on the part of each of these employees may result in a little improvement from each; possibly five percent of improvement in their daily work. The result is a five-percent improvement in the quality of the goods and in the promptness with which they are gotten out and orders filled in the total of the output and in the profits of operation. That enables the factory to make a five-percent increase in the wages.

Meanwhile the factory has gained in reputation. Its products are better known, have a better reputation, and a better demand is developed for the output. Its em-

ployees are known as being somewhat more prosperous and efficient than others, and to command better wages. They have a higher standing in the community. They are more sought after, therefore, individually, as the goods of the factory come more into demand.

Everybody is benefited. The consumer gets better goods, and feels that he has done well by dealing with that concern.

Moreover, the habit of improvement once started becomes confirmed, and the five minutes to develop mental thought does not stop with one achievement. It is the people who think and who act on their thought who make this old world move along on the road of progress.

Suppose each reader of CLINICAL MEDICINE takes this thought home with him: "What can I do to help along? I may not be in a position to make laboratory investigations or physiologic experiments, to devise new surgical operations, or to compile long, tabulated lists of patients treated in any particular manner. I may have only a few patients, possibly only one; but can I not extract from that one some information which may aid one of my brethren? Even if I haven't a patient, I have a backyard, and I can cultivate a little hydrastis; or I can go out into the back alley and dig poke-root, gather stramonium seeds, dig up yellow-dock, slice, dry it, and present it for sale.

If I have the taste for chemistry, I may find very profitable uses for my spare time. The garden poppy has the reputation of containing no morphine. But how about the other opium alkaloids? There is codeine, which is worth twice as much as morphine. There are narceine, thebaine, and the rest of the group; possibly it contains one of them, for which a market could be found. The oriental, or opium-bearing, poppy can be cultivated in this country. Could it be done successfully? Would it produce morphine here?

There is not one of us who could not contribute something to the general good, and he would be a winner by doing so; for any time anybody contributes to the general store he impels someone else to do the same; so that it is bread cast upon the waters which indeed returns manifold.

A single case well observed and studied is of value. Gross once said to me that some men would learn more from a single case than others would in ten years of active practice.

Every locality has certain affections which seem to be rather more prevalent in it than in other places. It seems up to the local profession to ascertain why this is the case. It may be that some localities are immune from certain diseases, and this also is a notable fact and deserves investigation. Hyde Salter said that for every asthmatic there was some spot upon the surface of the earth where he or she would be free from that disease. One man tells me that he has spent thirty thousand dollars endeavoring to find that particular spot for his wife.

Infectious diseases never occur without infection. In fact, cerebrospinal meningitis, typhoid fever or diphtheria, occurring in any location, should be the occasion for a searching investigation into the cause. Many a time such an investigation has revealed as the cause an unsuspected infection of the drinking water; and this being remedied, the general health of the entire community has improved forthwith.

Unfortunately too many of us become burdened with a routine in which our whole life is dwarfed, and our thoughts seldom rise above the round of daily visits.

Reformers shouldn't expect gratitude—just graveyard flowers.—David Gibson.

THE CLOUDS LIFT

In his address as chairman of the Section on Medicine of the Oklahoma State Medical Association Dr. R. H. Harper went beyond the usual platitudes and timid pessimism characteristic of such occasions and uttered some truths so well put that they should be read and pondered by many. It is published in *The Oklahoma State Medical Journal* for June, and there we refer our readers for the full text. The part that most interests

us is, that referring to drug-therapeutics. Among other things Dr. Harper says:

"We have a human body whose structure we know moderately well, whose physiologic processes are slightly known and but dimly understood, and when perverted by pathologic aberrations are absolutely bewildering in their infinite variety and complexity; but permeating them all, an endeavor on the part of the organism to return to the normal when disturbed by foreign or external factors. An attempt, more or less intelligent, to assist the body in this effort, constitutes the practice of medicine; and a large part of this practice has been devoted to the introduction of various substances, of endless variety and complexity and with properties either unknown or but partially understood, into this human body, with results that are indifferent, often harmful, sometimes beneficial to a very limited extent.

"It is attributed to Oliver Wendell Holmes to have said that therapeutics is the art of administering drugs of which we know little to a human being of whom we know less; and in the main this aphorism expresses the truth. A few fearless thinkers have proclaimed the futility of giving medicines with the intent to cure disease, but the majority of physicians seems to believe that it can be done, while to the laity the practice of medicine consists in finding the drug that will cure the disease that is being treated, as attested by the innumerable patent cure-alls on the market, and a large part of the proprietaries offered to the profession are not much better.

"But the fact remains that, with a few possible exceptions, drugs have little or no influence on the processes of disease and often hinder the organism in its effort to recover its normal state. Why are quinine and the antipyretics given to the extent they are in typhoid and pneumonia? Why are three-fourths of the medicines given that are used in any particular illness? Is it not often a failure to comprehend what we may of the processes going on in the sick body, and a concession to the patient, the family, and custom, to be doing something? What more interference does the average case of sickness need than cleaning outside and inside, rest in bed, limited diet, quiet and cheerful surroundings?"

This is along the usual line, with which we are tediously familiar from the endless repetitions of Holmes' original epigram. But Dr. Harper does not stop here. He is not content to tear away the tottering ruins and clear away the debris, but makes a beginning at the new construction that must follow:

"Do not think that I am making a plea for therapeutic nihilism—far from it; but I do advocate a deeper study of the fundamental principles of life in general, an intimate conception of physiologic and pathologic processes, a knowledge of the actions and uses of a few of the medicines that have stood the test of trial in the laboratory and at the bedside.

"The methods of the past, and a part of that of the present, may be compared to the blunderbuss, flintlock, shotgun, muzzle-loading, noisy, smoky, black-powder age of firearms. That of the scientific physician of the present and the future must be that of the modern high-power, effective, smokeless and comparatively noiseless rifle; for a few drugs and the active principles of our best-known medicines may be depended upon to give results that are fairly definite in assisting the organism in its contest with the disturbing factor. These we may use when a definite end is in view to be attained by their actions."

A summary of the ideas as reflected in this paper may briefly be put down as follows:

To know our patients and their diseases as well as we can; to know our remedies with their good and bad effects, "and when we give one, to do so with a clear-cut idea as to why and for what it is given, and its effect on the average patient, and not what we *hope* it *may* do for this one; that the effort of the organism is toward recovery, if the disturbing factor is not too great or sudden in its impact."

In this morning's *Chicago Record-Herald* I read of the excavations being made at Corinth, where the ancient temples are being

uncovered. Here the gods of Olympus were worshiped. Time passed, and that faith decayed. Another arose, that of the Nazarene. For a time the ancient temples might be utilized to shelter the new congregations, but the crumbling structures fell into disuse, and the best stones were taken for the upbuilding of the new churches, when they could be made to fit into the design.

Here may be traced the history of the old and new drug-therapeutics.

"There are people who spend hours fixing their faces—rubbing in cold cream and massaging the muscle—always toward the eyes—and taking in the slack with tincture of benzoin and electrolyzing moles—to what end? It's the larynx that the beauty doctors ought to work on. It's words more than warts, talk more than talcum, palaver more than powder, blarney more than bloom that counts—the phonograph instead of the photograph."—O. Henry.

THE PROPOSED NATIONAL DEPARTMENT OF HEALTH

Soon after the Gore bill, which provided for the establishment of a National Department of Health, was introduced in the United States Senate a systematic and expensive campaign for its defeat was inaugurated. A socalled National League for Medical Freedom took full advertising pages in the leading daily papers in different parts of the country to denounce the proposed department as a scheme on the part of "the medical trust" for the oppression of the public. The amount of money expended in this campaign suggests at once that the patent-medicine interests and those having financial reasons for desiring the perpetuation of this unclean business must be putting up the money. Who else can be footing the bills?

The officers and advocates of this League, who are so vociferously denouncing the trust, include Christian scientists, osteopathists, new-thought advocates, and editors of drug journals—a representative of *N. A. R. D. Notes* among them. An interesting aggregation!

Thus far we have not seen any convincing evidence that the proposed Department is intended to be or likely to become an instrument of oppression. Certainly its purpose —the safeguarding of the health of our people and the raising of our physical standards—is one that deserves the hearty support and sympathy of every citizen who has the interest of humanity at heart. We need a National Department of Health. The interest of the medical profession is not a selfish one, for less disease means less work for the doctor. If the Gore bill has defects, why do not its opponents aid in their elimination, instead of fighting the cause which it represents? Can it be possible that *their* opposition is based purely upon selfish money considerations?

THE GOOD MAN GONE WRONG

I never see a notice of a minister having fallen from grace and into uncleric ways without a sense of self-gratulation, that at least once I had the good sense to take the right course and avoid a frightful mistake. For I, even I who speak to you, was once urged to enter the theologic school. Even yet I hug myself because I rejected at once and forever the suggestion.

What!!! Never again to breathe the air of freedom? To walk sedately, to assume a grave and cleric demeanor, to disdain the beauties and happiness of this world and fix my eyes on my heavenly home? To be unable to run and shout and tear up Ned, to keep ever in mind my dignity and obligations, to be no more "Bob" but always "Robert," to be no longer "one of us," but to be looked at curiously and avoided as an outsider; to have the crowd stop talking and begin to siddle away when you approach; to walk past a saloon and feel that even if you wanted to you dared not enter—not that you had the slightest desire to do so, but you want to feel free to do so if you did! The minister must be incessantly on the watch, not to resist the assaults of the devil, but to avoid doing aught that might make people talk. He must ever ask how his actions may appear to somebody else. It is not a matter of conscience at all, but of Mrs. Grundy, of the *on dit*.

The need of relaxation is inherent. The athlete must have his times of freedom from

effort or he grows stale. He can not keep long in the "pink of condition" or he approaches the contest in the state of overtraining. The ancients recognized this need by the establishment of the Saturnalia, with their excesses that afforded a vent; and at their modern successor, the carnival, I have seen people doing things they assuredly would not dream of at any other time, but here indulged in from the sheer love of the consciousness of freedom. The tightly drawn repression of the Commonwealth was followed naturally by the almost incredible excesses and debauchery of the Restoration.

The sense of obligation, of necessitated obedience, takes away the self-commendation of the man who feels temptation and resists it. With head erect, one puts from him the suggestion of dissipation; but the unfortunate minister is possessed with the haunting realization that for him there is no question of credit for such resistance, for he had to act thus—he could not have done otherwise. A weakening of moral fiber follows. He could not do wrong for he is chained in a dungeon. If he possesses a spark of manhood he will have his moments of protest, of revolt. Then—look out!

A minister, a worthy man of the best repute, was arrested in Chicago recently, walking in the street with a woman of alleged bad character. He explained that he was endeavoring to reform her. It may have been true, probably was; or, again, it may have exemplified the boy's definition of a lie, as "an abomination to the Lord but an ever-present help in time of trouble."

Anyway, that man deserves sympathy. He learns to realize that when a woman goes bad she is bad with a depth of depravity no mere man can equal; just as when she is good, she makes us realize the possibility of angels, as a class that approaches the human but constitutes a race superior to us in the angelic attributes. He will have learned that something more than a few chance words from a stranger, without any possible plan for the future, is necessary to turn a street-walker into the paths of respectability. If he really yielded to temptation he may have a kindlier, more sympathetic sentiment toward other wrongdoers hereafter. In any event, he returns to his family and his congreagtion a wiser or a better man.

Meanwhile, isn't it up to us, the men of the pews, to take a kindlier view of the men in the pulpit, when their feet slide a little in the hard climb upward? After all, they are but men like ourselves, with the same passions, the same weaknesses, which even the high aspirations of their holy calling can not eliminate. Why should we expect in them a state of perfection which to us seems impossible—perhaps unendurable?

Give us larger charities. And let us help the good man in his larger efforts. Our work intercalates with his; our lives should be closer, our relations more intimate.

No reward is comparable to the inward assurance that you have done your best. The greatest thing a man can do is to make the most out of the stuff that has been given to him. This is success, and there is no other.

—George F. Butler in "Treasures of Truth."

HORSE SENSE IN ANIMAL PRACTICE—WHY NOT IN HUMAN PRACTICE?

The practical wisdom of the horse-fancier has become proverbial; and if we wish to express our opinion of a man's ability to grasp a situation and appreciate its salient points, we speak of him as having good horse sense.

The modern veterinarian is a different variety from the one-time horse-doctor, but he is of the same species, and presents similar characteristics, modified but not changed by the addition of that scientific study and training that the times require—because good horse sense demands that the "vet" must avail himself of the knowledge of the schools. The educated veterinarian recognizes a "swinney," a spavin or a ringbone as quickly as ever, but he also knows these maladies under their proper designations and can tell the exact pathology of each, its etiology, prognosis and treatment. He traces "blind staggers" to the feeding of spoiled corn, and many another malady to its true cause, where his predecessor

would have acknowledged to himself, but never confessed to others, his ignorance.

This seems to make it worth our while, as physicians of men, to note what the vets are doing. Their practice is carried on under widely differing conditions from ours. Their patients are not very susceptible to psychic influences, and their value does not come into consideration as when one has to deal with a human life. Relief and restoration to usefulness must be speedy, and the cost small, or the case closes in the sausage factory. Possibly the securing of quick relief at moderate cost may appear a not undesirable matter to the doctor of men, or to his patients either.

I have before me a copy of a little journal devoted to animal practice, *The Missouri Valley Veterinary Bulletin*. It is full of matter which I at least find quite interesting. The treatment has a refreshing directness and there is an absence of certain extraneous considerations that hamper our own periodicals.

The veterinarians seem to ignore the merits of Christian science, psychotherapy, hydropathy, and the limitless resources of the innumerable forms of nondrug therapy. They do use drugs, plenty of them; they boldly mention the names of the manufacturers and their favorite specialties, and Mulford, Abbott, Chinosol, Eucamphol, Eucamphine, Frank Betz, and so on, cheerfully are uttered openly and boldly, without the slightest indication of a sense of guilt. Why, the editor goes so far as to say, "It does not necessarily follow that because a man is engaged in commercial lines he can not tell the truth!" One correspondent is permitted to say that "the bacterins are the latest and best biological remedies in diseases where staphylococci and streptococci are in evidence," even though the speaker is engaged in the manufacture of said bacterins. Whatever weight that fact may have is apparently discounted by the readers, who do not seem to be kindergarten kids.

In colibacillosis prevention is urged; the alimentary canal is emptied and thoroughly disinfected by "remedies given until the bad odor of the stools disappears" and fecal toxemia ceases. Embolic colic is traced to the strongylus or sclerostomum armatus, as aneurisms were found in the anterior colic artery.

"Shotgun prescribing has no place in veterinary medicine." In intestinal medication "use the anodynes having least action on the secretion and motility of the bowel." Cases calling for quick action demand eserine, pilocarpine, arecoline or barium chloride; but "each has its own work to perform, and all are certain of their action." "How can one expect to throw a small amount of medicine into a large fermented mass of ingesta and secure prompt results? The hypodermic route will assist us greatly, but full relief is not obtained until the mass which has accumulated in the stomach has been eliminated."

"Eserine rapidly stimulates the unstriated muscles of the intestinal canal. Best give the small dose, oft repeated till effect, every half hour. Follow with a little aloes to complete the work.

"Pilocarpine slightly increases peristalsis; it pours fluid into the intestinal canal. Given hypodermically, its action is noted in about fifteen minutes. Atropine is its physiologic antagonist."

"Arecoline is a rapidly acting cathartic; its main function to increase secretions, combining the action of eserine and pilocarpine."

"Barium chloride is a cheap substitute for eserine, resembling it in action. Irritant subcutaneously, it is given intravenously or by the stomach. It purges by increasing motility. Its action is quick and certain. Depression of the heart may ensue, always alarming and sometimes serious. Add digitalin."

Doctor, did *you* know about these four hypodermic cathartics? Ever use them? Got any better? Ever need a hypodermic cathartic?

In a horse prolapse of the rectum followed feeding of bad food, and the tenesmus was relieved by the use of the hyoscine-morphine anesthetic tablets. Severe cases require amputation.

It strikes me that in this frankness of expression and freedom from outside constraint, which throughout bears the stamp of perfect honesty, there is a lesson that we practicians of human medicine may well learn. We want to cure sick people, don't we? Why should anything stand in our way in the acquiring and imparting of knowledge useful for that end?

There be six things which the Lord hateth,
Yea, seven which are an abomination unto him:
Haughty eyes,
A lying tongue,
And hands that shed innocent blood;
A heart that deviseth wicked imaginations,
Feet that be swift in running to mischief,
A false witness that uttereth lies;
And he that soweth Discord among brethren.
—Charles Eugene Banks.

THE CARNEGIE FOUNDATION REPORT

The medical profession, especially that portion of it engaged in medical-college work (no inconsiderable part!), has been much stirred by Bulletin No. IV of the Carnegie Foundation for Teaching, which is the record of a painstaking investigation of the medical colleges of this country, with numerous deductions therefrom. *The New York State Journal of Medicine* seems to voice the general sentiment of the medical press when it says that the author (Mr. Abraham Flexner, brother of Dr. Simon Flexner of the Rockefeller Institute) "is evidently of the opinon that it is the last word on the subject of medical education and writes in a style of insolent self-sufficiency. Each chapter and page of the book should bear the legend, 'When I open my mouth let no dog bark.' Modesty has not been included in the category of his virtues."

According to Bulletin No. IV there are a few, a very few, merely passable medical colleges in this country, but only one good one, Johns Hopkins. Rush, Harvard, Pennsylvania, Western Reserve and a few others are to be permitted to exist, but most of the medical colleges are condemned in unstinting terms and given over to destruction. The great trouble with most of our schools seems to be that many of them still cling to didactic teaching, and that is anathema to our critic. The laboratory's the thing. There is no education without it, and no adequate provision can be made for the laboratory without access to somebody's millions. Ergo, no medical college is a good college unless some benevolent millionaire has endowed it. Q. E. D.

Medical education is to be standardized by the dollar, if we accept the Flexner deductions. Besides this standard the devoted services of our great medical teachers, the men who ("didactically", of course) have inspired the young men of our profession, and whose very influence has brought about the marvelous change in our schools for the better during the last two decades, counts for nothing.

Suppose we put the same dollar-mark standard upon all educational institutions, by insisting upon the "laboratory" again to the exclusion of all other methods of teaching. Carry this into practice and the cost of obtaining an education will become so high that the "door of hope" will be forever closed to the poor boy and girl, since the small colleges and secondary institutions which exist for this class will be compelled to close their doors. Is there any American who would have the temerity to propose such a money-made aristocracy of higher education?

Are we willing to inaugurate such a dollar standard for admission to the medical profession? If so, who is going to "endow" the boys of small means who have the medical aptitudes?

But *is* this expensive laboratory instruction absolutely necessary for the making of good doctors? Admitted that it has great value as preparation for research work, but it is still in the experimental stage so far as its value in preparing men for the actual exigencies of practice is concerned. We agree with the editor of *The Medical Standard* who says that "the ultimate standards will be set by the public and not by the profession." As he forcibly states:

"The public has standards of its own—perhaps it would be more correct to say *a* standard of its own, which, however the academicians may scoff at it, has always been,

is now, and will continue to be, as long as medical science shall last, the final and indeed the only valid test of professional efficiency; a standard by which the whole function of medicine, in all of its aspects, must justify itself to civilization, or, failing, is estopped from pleading any other laudable attainment.

That standard is the standard of *results*. In the public estimation—and we have ultimately no other bar at which to answer—the old criterion still remains in effect, *cito, tuto, et jucunde curare*. By this touchstone shall all medical agencies be tried, educational agencies among the rest. These schools of medicine which, by reason of poor equipment or careless teaching, cannot turn out men able to measure up to this test, will automatically perish; those whose graduates fulfill this ultimate requirement will endure, even in competition with Johns Hopkins and the University of Pennsylvania."

HIGH-CLASS EDUCATION?

We have recently had quite a boost given to several of the Chicago medical colleges, at the expense of the rest. One man's opinions and views may or may not be just, but there is safety in numbers. Possibly the medical student who seeks an education and pays his own money for it may be allowed to have some discretion as to how and where he can lay out his means to the best advantage. Whatever of justice there may be in this idea, here is an item for cogitation.

Previous to her affiliation with the University of Chicago, Rush had the largest class of any American medical college, numbering more than 800. That meant that 800 students received the benefits of her equipment, course and teaching, and that these were utilized by that many in practice and transmitted to the people at large.

Under the present arrangement the University of Chicago takes the first and second years, and Rush College teaches during only the third and fourth. The two years at the University constitute the junior and senior years of the ordinary college course, made medical by the choice of selective branches; so that Rush is really a two-year medical college, graduating her students in medicine two years after they have received the degree of A. B. or of B. S.

The current announcement informs us that there are in the University of Chicago 329 students who are availing themselves of these privileges and so arranging their course as to be able to graduate in two years at Rush. This arrangement has been profitable, apparently, to the University.

The same publication tells us that Rush really has in her own classes just 186 students, of whom 50 are adorned with the degrees—mostly B. S.—of the University of Chicago. Apparently Rush Medical College gets the short end of the deal.

The ailing populace gets less than one-fourth as many graduates from Rush as they used to. Of the 2500 or more medical students who come to the city of Chicago for their education about one in fifteen chooses to graduate from Rush. That this is not because of the higher qualifications is shown by the fact that the man who stood at the head in the competitive examinations at the Cook County Hospital was not a Rush man, nor a college graduate, but a product of the high school.

We are far from decrying the benefits of a classic education as preparatory for the study of medicine. The writer has taught all classes of medical students, and the college man comprehends his instructions far better than the less cultured. But there ever must be applied the personal equation, and earnest determination, industry, native wit and brain-power have their values just as well as a degree earned.

The advances made and urged in lengthening the medical course have two disadvantages—they prolong the period of preparation until the graduate has passed his youth, and, nearing his thirtieth year before he is ready to commence his life-work, he has lost the incentive of youth and his sympathies are dimmed. Then the exceeding expense incurred and the scarcity of such highly finished products renders such a doctor a very expensive luxury—resulting in the sure rise of a class of practicians who stand nearer the masses and who will get

and keep their confidence. Draw the lines closely, and this class will not be supplied by the regular profession but will come in from the outside, with little real preparation.

There must be an avenue by which the poor young man can get properly into medicine, through the regular avenues, even if he can not afford time and means to take a nine-year course after leaving the high school.

"You may succeed by dint of strength,
And go the long way all alone;
You may win in the fight at length
And never know a sigh or groan;
But good intention, as a bond
Of what your bosom may intend,
Cannot be cashed by you beyond
Or made to pay a dividend."

ADVICE FOR THE SUMMER OUTING

The *Bulletin* of the Chicago Health Department is telling plain health truths in a snappy, epigrammatic way. We congratulate the writer on his happy style, which is as breezy and bracing as good old Lake Michigan itself.

Following are a few gems:

Don't locate until you know that the water is good—not necessarily sweet, but wholesome.

If there has ever been typhoid fever in the place make them prove that things are different now.

Don't stay in a fly-ridden place—flies mean filth. The parlor may be very clean, but if there are flies around you may be sure there is filth in the kitchen, in the hog-pen, the dairy, the privy, or somewhere thereabouts. This is certain. You cannot see germs but you can see flies, and the significance of the one is much the same as the other.

Don't swim in dirty water. Many of the resort places have bathing water which does not analyze as clean as the main stream of the Chicago river.

There are some resort towns with good water, good sewerage, good garbage collection—encourage them. There are other towns which do not make life safe—avoid them.

There are resort hotels and farm houses which are clean, wholesome and safe—patronize them. There are others not much safer or cleaner than pig-pens—keep away from them and keep your friends away from them.

The *Bulletin* advises all Chicago people to stay at home. "Why go away for a vacation?" it asks. Here we have good water, a safe milk supply, cool shaded parks, and Lake Michigan, with its breezes, boats and beaches. There are amusements to suit any taste. *Is* there any better place for the summer than our own home town?

These suggestions we pass along to readers of CLINICAL MEDICINE. In looking about for a place to spend your vacation don't forget Chicago. Here are things to do as well as to see. Why not Chicago?

"WASH BEHIND THE EARS"

Robinson, in *The Critic and Guide*, quotes approvingly from our sprightly "new thought" neighbor, the *Nautilus*, that "they will never get on who never wash behind the ears"—which is a pretty epigram—but not always true. I can not resist the temptation to extract a moral from this remark, even though I have as marked a distaste for moralizing as doubtless my readers have. But here goes:

Moral: There are many men, even in our own profession, Dearly Beloved, who have somehow found the spot-light and whose faces glow under the calcium from much scrubbing with scientific sapolio. But behind the ears—also above them—how thick the dirt of ignorance!

"NOTES" GOES ON RECORD

N. A. R. D. Notes, in its June 30 number, submits some resolutions for the action of the Pittsburg convention of the N. A. R. D., next September. These resolutions, if passed, would commit the druggists to an organized effort to coerce the medical profession, or such a part of it (said to be fully 80 percent) as prefers to dispense its own remedial agents. It is to be "Resolved, that this association is . . . opposed to the compounding and dispensing of medicines by physicians and favors such modification of our laws as will prohibit the same under suitable penalties."

It is to be hoped that the better judgment of the association will prevail, as it has in the past. At the Boston convention of the N. A. R. D. such a resolution was voted down, and "no subsequent convention has ever reversed that action." If our druggist friends want to squelch most effectually the

growing sentiment of reciprocity and friendship between the pharmaceutic and medical professions they can not do it more effectually than by passing *Notes'* resolutions. It is a dangerous thing for any tradesman to try to *drive* people to drop money in his till.

It is true that in exchange for such legislation *Notes* favors obedience to the laws *already on our statute books* which prohibit the pharmacist from prescribing for the sick, though even this doubtful (and illegitimate) concession is to be so conditioned that "neither the provisions of the laws nor the enforcement thereof should be such as to prevent the prescribing by pharmacists for those minor ailments for which the public cannot be induced to consult a physician," and it is further conceded that the doctor may dispense his own medicines "during a visit to a patient when the nearest pharmacy is not in reasonable proximity to the sick-room."

In other words, the druggist is to be allowed to carry along his business in exactly the same way that he always has—if he is an honest, law-obeying man—but a majority of the medical profession is to be compelled to change completely its style of practice so as to turn a larger share of the doctor's too scanty earnings over to the retail druggist. Incidentally, the expense of sickness to the patient and his family is to be increased, since the dispensing doctor rarely expects to make a profit on medicines furnished, his essential charge being for professional service.

With the kindliest feelings in the world toward the editor of *Notes* and his clientele we must say that his effort to extract something "humanitarian" out of this proposed antidispensing legislation is decidedly farfetched. Legislation that increases the cost of sickness to the people—as this would do —with no proportionate popular benefit—as there is no evidence whatever to suggest—is clearly *not* for the good of humanity; on the contrary, it is a social and economic disaster, and the people only need to be awakened to the true inwardness of the whole matter to put up the prettiest fight that our druggist friends have ever seen, a fight that may do the Christian scientists some good, but certainly neither of our two professions.

Self-distrust is the cause of most of our failures. In the assurance of strength there is strength, and they are the weakest, however strong, who have no faith in themselves or their powers.—Bovee.

OPIATES IN INFANCY

Dr. Lust disagrees with those who prescribe the use of opiates in infancy. When properly used, he considers opium one of the most useful agents at our disposal, but it must be given cautiously, methodically, and in suitable cases. Young children tolerate morphine remarkably, in fact as well as adults if the doses are proportioned to body-weight. Toxicologically the tolerance is greater than that of adults if the same dosage is employed. This is greater the younger the infant.

Opium is condemned on account of the variability of its composition, containing many principles of different and antagonistic properties. Morphine is simple, stable, always identical, and can be administered with mathematic precision to obtain exactly the desired effect.

The doses must be regulated by the child's weight, and not by its age. The commencing dose is 1-200 grain for each pound of the child's weight, for a twenty-four hours' dose. Thus to a ten-pound child 1-20 grain would be the dose for twenty-four hours, to be divided into as many parts as may be desired. Or, this may be given at once in a small enema. Hypodermically. the dose should be 1-1000 grain for each pound of body-weight. These are minimal doses, to be increased if necessary.

Tolerance in the infant is rapidly established, and if needed we may rapidly increase the doses without fear of cumulative action, although it is wise not to double the daily dose.

This is apparently pure alkaloidotherapy, only that the development of this science leads to the utilization of several exactly applicable remedies in the conditions for which morphine is approximately applicable.

Morphine has a wide field—like one of the old cattle ranches now being divided into a multitude of small farms for intensive cultivation. When we apportion to hyoscine, hyoscyamine, gelseminine, cicutine hydrobromide, monobromated camphor, menthol, dioscorein, helonin, glonoin, solanine, aconitine, codeine, zinc cyanide, emetine, narceine, digitonin, and cannabis, the cases in which each excels morphine, we find there is little if any useful application left for the latter.

Morphine has been termed the remedy for the lazy doctor, and the appositeness of the charge is obvious. The man who does not take pains to appreciate exactly the pathologic conditions, and to fit thereto his remedies with like exactness, loses the principal charm of the practice of medicine—that of foreseeing and predicting results that come true as predicted.

We are very, very sorry for the man who does not believe in drugs.

Lay it down as a safe proposition that the fellow who, every little while has to shake the baby's bank for carfare isn't going to evolve into a Baron Rothschild.

—Elbert Hubbard.

TREMBLES, AND ALUMINUM PHOSPHATE

E. L. Moseley, last May, contributed a paper to *The Medical Record,* in which he showed that milk-sickness is attributable to aluminum phosphate. In the month of September two children in Ohio, near Sandusky, died from this affection, brought on by eating butter from cows that were said to have browsed the foliage of white snakeroot. Four horses in the same pasture were affected by trembles, but not fatally.

In the butter made from the milk of these cows Moseley found two-hundredths of one percent of aluminum phosphate. This butter fed to kittens produced in them milk-sickness, or trembles, for a few days. A corresponding amount of aluminum phosphate put on fat meat was fed to the animals and caused the same symptoms. Given with lean meat it produced trembles, but not so much as with fat meat. When given with a vegetable diet it had no perceptible effect. With milk it was less effective than with fat meat, although a single dose of 300 milligrams given in milk to a kitten resulted in death in seven days.

The addition of a little soda generally prevented the aluminum phosphate from doing harm. Potassium bicarbonate had the same results. The father of the children referred to being taken with the same disease, he was given some soda and made a speedy recovery. Soda put in the feed of the affected horses was followed by noticeable improvement in their condition.

This treatment was recommended by W. E. Walsh of Morris, Illinois, who had found diacetic acid in the urine of his patients, and had administered the soda with good results. He looked upon the acidosis as the cause of the extreme symptomatology in these cases.

RATIONAL THERAPEUTICS

Some time ago there appeared, in a prominent medical publication, a paper which seems to be an iconoclastic dissertation of the present-day system of therapeutics. The trend of the discussion was to the effect that present methods of treatment were such as are directed merely to the alleviation of symptoms and do not eradicate the cause of disease. There is an effort to overcome the effects, but no rational therapy specifically to antagonize the direct causation of the malady.

Such a criticism as this sounds logical and praiseworthy to the uninitiated or unlearned and unthinking individual. But let us ask the author of this contention, in how many diseases is there a specific remedy which may be opposed to the direct productive factors of the affection? Of all the numberless therapeutic remedies but four can properly be called specific, namely, quinine, iodine, mercury and antidiphtheritic serum; and of these, but two can be rationally explained as to their method of action, quinine and antidiphtheritic serum, although we are fairly well convinced of the action of mercury in syphilis now.

On the other hand, but comparatively few diseases have had their cause undeniably demonstrated; even smallpox, the type of contagious disease, having as yet its exact etiology unproven. But granting the fact that its specific causative microbe were known, what remedy have we that could be administered with confidence of germicidal results in the body? For the purpose of illustration, consider a case of lobar pneumonia. The germ causing this disease is practically proven to be the diplococcus pneumoniæ; but even though positively knowing this etiology, what therapeutic agent can be employed to shorten the course of the malady? It is admitted by the greatest minds in the medical profession that pneumonia is a self-limited disease, uninfluenced by treatment, save as the consequent symptoms are combatted by symptom remedies. Antipneumococcic serum has failed to produce the results we were led to hope for by considering its analogy with diphtheria-antitoxin; therefore no specific remedy has been brought out.

A rational therapeutic procedure to combat this as well as other microbiotic disease would be to administer antiseptics to destroy the causative bacteria. But while this is a beautiful theory, unhappily, in practice such medicaments may not always be given in sufficient strength to overcome the microorganism without at the same time destroying or injuring the life of the host.

It is, then, clearly apparent that it is absolutely impossible to administer a remedy directed solely against the cause of such diseases, and the only thing left in our power to do is to endeavor to control the symptoms in order that the normal body resistance may have as good a chance to overcome by natural means the deleterious influence of the morbific material of disease.

In the present state of our knowledge, therefore, it is absurd to decry symptomatic treatment. The patient is delirious, and burning up with an intense fever due to the multiplication of pathogenic bacteria in his intestine and the absorption of their noxious products. Shall we allow him to lie there and suffer by withholding baths, cathartics, and intestinal antiseptics because we can not introduce a large enough quantity of corrosive sublimate into his intestinal tract to kill all the typhoid bacteria living there? By no means. Battle with the hyperpyrexia by proper remedies, including suitable drugs as well as cold baths, and cold drinks; control and stimulate the flagging heart by cardiac tonics, free the bowel of its encumbrance of decomposing fecal matter and check further retrograde processes in the intestine by the use of the sulphocarbolates; see that proper means are employed to secure normal function of the skin and kidneys; aid the impaired digestion.

Do not refuse to assist nature by symptomatic treatment because as yet we cannot handle the pathogenic bacteria in the body as we do in a test-tube. There is much, very much, that the physician can do if he reads the reaction of disease, as the story changes day by day, and meets that reaction with positive remedial agents, administered with brains.

We are all a part of a social or commercial system, and on the natural law of compensation, we are not allowed to take very much out unless we put something in.

—Gibson's Magazine.

VITAL FORCE

Vital force appears to be a compound of the moral and physical blended in due proportions. Either constitution may be attacked by disease and then depress and affect each other. Every doctor knows that unless his patient has his heart set upon getting well, unless he brings to bear the powers of his mind to aid the physician's efforts, drugs can only be of temporary benefit. If the patient is apathetic, listless, despairing, allowing himself to drift helplessly; if he becomes panic-smitten or superstitious about his condition, the physician is placed at a great disadvantage. But if the doctor be something more than a materialist; if he has, himself, a big, sympathetic heart and human insight, he will know how to combat the moral weakness, he will know how to place his own strong, willing spirit under the drooping, despondent and fear-stricken

one of the patient and secure a rally which will reinforce and sustain the good effects of his medicines.

His knowledge of human nature and life enables such a physician to diagnose readily the lacking moral element. It may be hope, or faith, courage, belief, resolution. Whatever the patient needs in the groundwork of his moral nature, the true physician skilfully supplies by suggestion, by tacit appeal and indirect assurances. He radiates from his presence a healthy and contagious atmosphere very stimulating to the mind of the patient.

The physical constitution of man being subordinate to the normal, when the physician has, through his sympathetic insight, got at the causes of his patient's depression and indifference or other unhealthy moral state and lifted its weight from the sick man's spirit, he has all the power of the *vis medicatrix naturæ* in his favor. A cure then becomes a simple matter of chemistry and mechanics, so to speak. By means of judiciously selected remedies, the doctor will stimulate certain depressed parts or sedate other excited ones, restore the physical mechanism to its normal equilibrium, and it will run along smoothly so long as sufficient moral force is generated by right living to sustain the integrity of the moral constitution.

This is no figment of the imagination. The eye of faith, the ears of belief, and the arm of courage are as essential in their exercise and proper nourishment as are the physical members. And virtue is curative in its beneficent influences. Even in a broken leg the fragments unite and knit more quickly in cases where the blood is cool and pure from temperate living and the individual keeps a hopeful, cheerful spirit. Of course the leg must be set and tended just the same.

Equally, of course, the indicated remedies are indispensable in the successful practice of medicine. All agencies are useful in their own spheres and under their own laws. But since man has a moral as well as a physical constitution, the successful physician will not ignore the power of moral attributes, and influences over his patients, but will study how to use them effectively in making cures.

Some of us fit in—and others butt in.

THE REACTION AGAINST DRUG-NIHILISM

The Washington Medical Annals for March contains an interesting review on therapeutics by Noble P. Barnes. Barnes notices the reaction against drug-nihilism and shows that even Osler himself has had to recognize it and to modify his extreme pessimistic view. Barnes also quotes the following fine remark of Jacobi: "Expectant treatment is too often a compound of indolence and ignorance. Verily, I tell you it is malpractice; it is no treatment. It is the sin of omission, which not infrequently rises to the dignity of a crime."

Following is a quotation from Osler, which shows his change of heart; commenting on which Barnes says: "This is only an example of the promised renaissance of therapeutic zeal that is arriving just in time to save for the medical doctor that portion of practice that has not already drifted to the various other learned professions."

Following this, Barnes proceeds to give a number of illustrations of the old story of "the play of Hamlet with Hamlet left out." While he quotes a large number of therapeutic suggestions, he carefully excludes everything coming from the group of men who initiated this therapeutic renaissance; excepting only a reference to Dr. Ussher's paper on calcium sulphide. From this Barnes picks out the only sentence with which fault could possibly be found, and cites from it with expressions of contempt. He quotes Barton's paper on "Internal Hemostatics" as "a thoroughly scientific and up-to-date matter," although Barton does not mention atropine, which is worth all the other hemostatics together, ten times over.

Lambert's paper on "The Obliteration of the Craving for Narcotics" is mentioned. What Lambert really did, was to discover

the composition of a certain secret remedy in the hands of a lay member, and this formula he published, with an account of some cases treated with the preparation. This very remarkable discovery is deemed worthy of note. The fact that the elimination treatment (which is the only part of it that is worth anything) had been carefully elaborated from a study of patients under treatment and proclaimed years before Lambert's paper, is ignored. Altogether, the matter seems to us pitiful, and these things bring to mind the anecdote about Columbus and the egg.

Humanity is very much alike.

BANTI'S DISEASE

In *The New York Medical Journal* Otto Lerch presents a case of Banti's disease. The woman, thirty-two years of age, had led an indoor life and for eight years had had no outdoor exercise whatever. Her history showed an attack of malarial fever eleven years previously. After this she never entirely recovered, but continued ailing. Two years later her spleen was found to be enlarged, liver congested, abdomen swollen and filled with fluid. These symptoms disappeared under change of climate.

Eleven years after her first illness Lerch found this woman complaining of excessive weakness, short breath on slight exertion, occasional epistaxis for a year past, and bleeding hemorrhoids. Her appetite was poor and capricious, and she was troubled with belching, fulness after eating, and constipation. Menstruation was not painful, but she had flooded for ten days the last month, and for several days each month before.

She was slight, five feet three inches in height, and weighed 126 pounds, this having been constant for ten years. Her face, the back of her hands and forearms were covered with large bronzed spots; fingernails were pale, as well as the lips and other mucosæ. The scleræ were slightly icteric, tongue was coated, teeth were healthy and in good condition. The neck showed brown spots on both sides. The patient's general appearance was cachectic and waxy; the arteries were easily compressible, pulse was 80 and regular, heart borders were normal, but there was hemic murmur; lungs were normal; abdomen was distended with gas, but no ascites; liver was palpable, smooth and hard, measuring four and one-half inches in the right mammary line; spleen was enormously enlarged and reached below and beyond the umbilicus, the borders smooth, the form normal. The urine was normal. The blood showed a diminution of red cells down to 4,000,000 and hemoglobin to 60 percent.

The symptoms were typical of Banti's disease. The course was marked by tonicity and remissions. Under a hygienic and dietetic treatment and hypodermic injections of arsenic she improved.

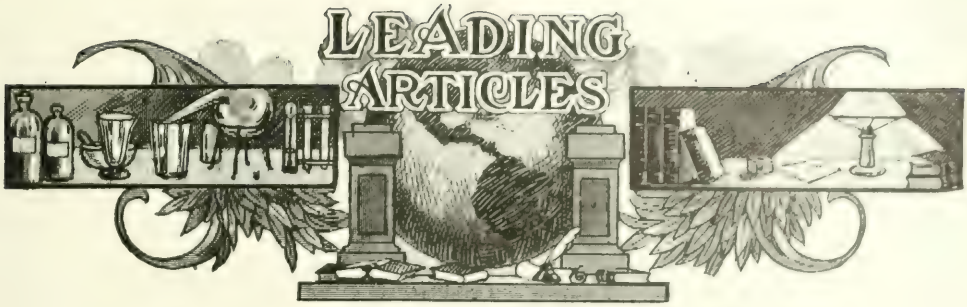
Considering the history and the symptoms of this case, I should feel inclined to attribute a proportion of the affection to fecal toxemia.

THE TONSILS SENTENCED

In *The Monthly Cyclopædia* Scarlett contributes an interesting paper on "Tonsillar Hypertrophy." It is especially interesting from the references which he makes to the perils attending the surgical removal of this organ when diseased. Ballenger saw a patient exsanguinated in ten minutes and kept in bed for three weeks after the use of the snare. Freer refers to a case of gangrene of the throat, ending in death, from ulcerative endocarditis. Casselberry "uses the snare less than formerly, on account of the secondary hemorrhage."

"The objections to Pynchon's electrocautery dissection are the marked inflammatory reaction and tendency to secondary hemorrhage, which is difficult to suppress."

These and many other quotations to the same effect which might be made bring to mind the question: Why is not the same care given to the development of means for the cure of these organs when diseased, as is devoted to their extirpation? Reverse the pathologic process by which they become diseased—and you can not say that it is impossible.



Looking Backward—and Forward

What an Experience in Indian Practice Taught One Thoughtful Physician

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

WHEN I was the prize-pupil in physiology at the old log schoolhouse on Burnt Ridge, kept three months in the year by a red-haired schoolma'am (bless her!), my application to the study of the simple rules laid down by the authority for the guidance of the youth of America was prompted by a fixed and steady purpose to turn, at some future time, into account in the world of medicine the knowledge thus acquired. I grew up with the idea that in the practice of my profession I was to find a "soft snap," as we say here in the West, something different from sawing logs or "punching cattle" on the range. I often saw the country doctor driving by behind his handsome team, and I resolved that I too would some day sport a handsome team and have people mention me as "doc." Well, they have since then so applied that term, and I have, perforce, been obliged to submit to it but have sincerely wished I might have the pleasure of designating the punishment for the man who invented that appellation.

There's No Soft Snap in Medicine

The "soft snap" faded, in after years, like many another iridescent dream of youth. If there is anything "soft" about the practice of medicine and surgery in a country village, or even in a town the size of this one I inhabit (5,000), then I have been so unfortunate as to miss it. Still, how many of us are there who would change our lot if we could? I would not, and I am holding my ear quite close to the ground to hear the answer from my brethren.

I began to have faint adumbrations of the "soft snap" that was coming my way when I finally made my debut in medical college. In my blissful ignorance I had supposed all the candidate for Aesculapian honors had to do was to loll around on downy seats in a magnificent amphitheater and listen to the words of wisdom as they fell like pearls from the lips of the instructors. Very true, before making the debut aforesaid I had spent several winters with good old Dr. Watkins (God rest his soul!), and the good doctor had insisted upon my chewing great chunks of wisdom out of Gray's "Anatomy," a portion of which I digested in a dyspeptic sort of way, so that when I arrived at college I could patter anatomic nomenclature so fluently as to deceive the professor on that subject for several days.

Fossilized Ideas and How I Got Away from Them

What I set out to say was, that in that college, while helping in my humble way to increase the increment of the Standard Oil trust, I became imbued with a certain set of pliocene fossilized ideas that it took me sev

eral snows to get out of my system. For antiquated teaching and hide-bound prejudice commend me to the average medical college, or rather to the teaching force of that kind of institution.

Somebody has said, "Orthodoxy is my doxy, heterodoxy is the other fellow's doxy." Once, during my senior year, I had the audacity to suggest something that was not sanctioned by the ironclad book on therapeutics in use in that college, and came near getting excommunicated for my heterodox beliefs.

When I got out into the big field where people sometimes became ill and a few of them intrusted their precious lives to my care—very foolish of them it was, too—and I began to try out some of the ideas taught in college, I found them, to use another westernism, "a few chips shy."

Take my first experience in infantile diarrhea as an illustration. I fell into a sort of epidemic that first summer, and with the usual result. I had always been very fond of children and it made my heart bleed to see the little things slip across the Great Divide in spite of all my efforts to save them. In vain I conned over the standard works and tried one after another of the time-honored, hoary-headed remedies.

'Long about this time my old preceptor attended a meeting of the A. M. A. held in Denver and met with a man there who had some ideas; to these ideas that man was trying to induce the profession to listen. The man lived in a place called Chicago. Perhaps you may have heard of him and of his town.

You could pour an idea into my old preceptor with a reasonable assurance that it would stick. He returned and upon the first provocation poured some of the ideas that had stuck into yours-truly. After concluding his lecture, he handed me a small case containing, I think, 32 little vials of granules, with the remark: "Now, Charles, you are in position to try this thing out" (I was then among the Nez Perce Indians), "the people here are too conservative to take anything new. Take this case home, try it on your people, and if it works let me know."

I straightway departed for my aboriginal clientele, armed with sufficient of the "clean-out, clean-up, keep-clean" stuff to give the matter a most thorough test among a people who could not be supposed to inject extraneous conditions into the equation.

The Indians had recently sold their land to the government and were flush with money. With characteristic Indian prodigality they had bought foodstuffs that were but poorly fitted for uneducated stomachs. The wily traders had stocked up, in anticipation of the coming harvest of Indian coin, with the cheapest and worst-possible combinations of sweet stuffs, and these the savages bought and devoured *ad lib.* The first Indian baby that came under my care after returning home was one that had been with his parents to the Agency and there had filled himself with the good (?) things aforementioned. In consequence, when I reached that baby he was just about as near moribund as any Indian baby you or I ever saw.

I hadn't the time, inclination or ability to figure out the exact kind of "itis" that chap was dying from. I was sure as to its being an "itis" of some portion of the alimentary tract and did not give a rap where the inflammatory area was situated. It was a case of get there with something that would scatter that nest of "bugs", and get there quickly.

How I "Caught On" With the Siwash Family

I was lucky in that I had full sway. Mrs. Siwash did not insist upon intruding her old standby remedies that her grandmother had doctored all the children with, as do some civilized women. Mr. Siwash lighted his pipe and squatted on his heels beside the tepee, perfectly content to allow the white doctor to do his worst—or best.

The little chap was having almost constant evacuations of pea-soup stools, vomiting at intervals the while, the eyes half closed, tongue white and pasty, the features pinched and drawn—the typical picture that needs no elaboration. You will see it without.

Here was a lovely case to try my new-found friends. I confess that it was with

considerable misgiving that I opened up on the chap with the little granules.

I squatted down beside that pallet, Indian style, with a glassful of a mixture consisting of hydrastine, copper arsenite and atropine, and begin to administer the prescription. The first few doses came up quite promptly. The others staid. In a short time I had the satisfaction of seeing the skin begin to redden (O yes, you can see an Indian's skin redden if you know how to look for it), the breathing became deeper, the heart began to behave more as a civilized heart should, the evacuations were still frequent but they were not now accompanied by so much griping. As soon as I had yanked the little fellow back away from the brink of the Big River I began to clean out the fermenting mass. Just calomel, that was all. After it the sulphocarbolates. The baby got well.

Several other babies got well that summer. One of the last letters I ever wrote Dr. Watkins, before the assassin's bullet ended his career, was to tell him of my success with the alkaloids.

Now, brethren, I appreciate the fact that there is nothing in the foregoing from which you can learn one thing. It is just a little tale of how one man found out something.

How Tokas Was Saved from the "Big River"

Here is another one to keep that story company.

My friend Tokas Ilp-Ilp (an Indian) was a great salmon fisher. When the big fish were running it was Tokas that was first on the water in the morning and the last to quit it at night. It rained one day, a cold, hard-driving rain. The salmon were striking well and the Indian could not leave his work. That night he was taken with a hard chill, then the high fever, a sharp, sticking pain in the lung, difficult breathing, distressing cough, and the whole train of symptoms of an acute pneumonia. Tokas was very ill. He sent for me. With stoical Indian indifference he told me how he felt and expressed the belief that he had been called for. I laughed at him, but when I took his temperature and the stethoscope revealed a consolidation of one entire lung it certainly looked as though the Happy Hunting Grounds were to have an addition to their redskin population before long.

An Indian is an unconscious fatalist. When he feels himself very ill he abandons all hope and calmly awaits the arrival of the old gentleman with the pruning hook. That makes a very sick Indian a very difficult patient. He does not aid you in the least. You cannot encourage him with hopeful words and he has absolutely no *vis medicatrix naturæ*. The intrinsic values of your medicines must do it all.

I didn't want to lose Tokas, he was far too valuable as a hunting and fishing companion to be spared. If ever I worked to save a patient it was that redskin that night. He presented that atypical condition just bordering between the sthenic and the asthenic; his heart needed toning up and his temperature needed toning down; so I got after him with aconitine, veratrine, digitalin, and threw in a few granules of brucine for luck.

Well, luck or the combination did the work. Tokas began to improve about midnight, and by morning he was so far recovered that I felt free to leave him. I will say that before doing anything else I administered a heroic dose of calomel and about midnight sent a "chaser" of something like an ounce of epsom after it. In the case was a small supply of granules of Blackham's cough mixture. The cough remained distressing, so I gave him these. They worked. His cough got better at once. It may have done so of its own accord, but I don't know that it would.

Here's one more, then I'm going to give you a rest.

And Now—Typhoid Fever Among the Indians

Even an Indian will contract typhoid, and when he does, it does not require a very astute logician to see that to treat him *à la* Brand or any other form of hydrotherapy is impossible. The physician has to depend upon his therapeutics entirely. My experience with the coaltar products and the then much-lauded Woodbridge treatment had not been very flattering. In the few cases that came

under my care the patients either died or were very slow in convalescing.

Intestinal antisepsis was then just in its swaddling clothes. The few professional men who were brave enough to advocate it were looked upon as iconoclasts and fit only to be treated as medical pariahs. Somehow the idea took hold of me, and looked so blamed reasonable, that I resolved to try it. The intestinal antiseptic tablet had not then emerged from the fertile brain of its originator, so I could not apply that.

Natskin, another aboriginal friend of mine, came down with typhoid. The old warrior moped around his tepee for something like a week, trying to wear his complaint out before he sent for me. When I got around he was a pretty typical typhoid subject. It is not at all necessary for me to enumerate the symptoms, you will create the picture out of your own experience. He was lying in an open tepee with the sun of August beating down with all tropic fervor, the flies were swarming about his head in a cloud, and all the hygienic rules were screaming at the outrage.

I got busy, rigged up another tepee beneath the shade of a pine and enclosed it with mosquito netting, threw away the bedding upon which he had been lying and brought in a clean supply, stripped the old redskin of all his habiliments and gave him a bath. The temperature seemed to demand attention, so I went after it with the dosimetric trinity until I got it to keep quiet. I know now that I should have done something else first, but land! we all have to learn.

After I got the fever down somewhere to around the 100 mark I shot some calomel into him and followed it with my old reliable standby of epsom. As I before remarked, the intestinal antiseptic tablet was not yet, so I began with the zinc sulphocarbolate, and in my ignorance gave him an amount that would have caused that ponderous tome of therapeutic ignorance, the United States Dispensatory, to fall dead with fright. I'll bet I gave that old savage half an ounce that first day. Did he die? Well, I should guess not. He not only didn't die but he managed to struggle along and live, and is doing it yet. His temperature stayed down, and in less than a week he was howling for pounded camas and jerked venison.

In all my experience among the savages I stuck to the active principles as far as possible, and Indians are difficult subjects to treat at that. One by one I abandoned the old galenicals, until today I hardly know the names of even the old favorites.

And Now for the "Forward"

So much for the "backward"—now for the "forward."

As the years have rolled away down the corridor of time I have watched the growth of an idea that was, at the time of its promulgation, to say the least, unpopular.

The leading men of our profession are beginning to ask themselves the question, "Why is it necessary to dose the helpless patient with a mass of inert, nasty-tasting dope when the same thing can be given in a more palatable and quicker-acting form?"

By the way, I want to add right here that it is not the "leading" men in the profession that have blazed the trail into new regions. The common man, out in the backwoods or in the wheat fields has ever been the one to see the good in things and apply them. It has ever been the great army of the everyday doctors who have proved all things and held fast to that which was good. The "leading" man has ever been the laggard until his less "leading" professional brother has demonstrated the good, and then the "leading" man has calmly setpped in and appropriated the honor of the discovery for his own.

There are a great many men in our profession that, like Malvolio, have to have "greatness thrust upon them." Aye, more even than that, some fellow has to get at them and drive it into 'em with a maul. But it finally grows. Light dawns upon the human mind but slowly. We are an ultra-conservative folk, taking but tardily to the new and untried.

A few adventurous experimented desultorily with the active principles, and to their surprise the patient experimented upon recovered while another just such a case alongside treated with the old-tried "shot-

gun" methods promptly passed across the Big River.

Result, the happy experimenter found out that he had accomplished something and told his fellows. They in turn tried it and passed the word along. The idea grew, and today I am pretty safe in asserting that more than half the up-to-date medical men in the country use the alkaloids in their practice.

In August I go to military maneuver camp where I shall have medical supervision of over 2,000 men. I shall not even *unlock* the handsome medicine-chest filled with archaic remedies, furnished the state troops by the United States Government, but shall confine myself to my case of alkaloids entirely.

It may be egotism on my part, but I shall confidently expect my men to fare better and make more speedy recoveries than those treated by the other surgeons with the old galenicals. At any rate I am honest, and if the results are not better than theirs I am going to tell you; if they are better I'm going to tell you too.

The Treatment of the Injured Hand

How to Cleanse It and How to Examine It

By RALPH ST. JOHN PERRY, M. D., Santa Fe, Isle of Pines, Cuba

EDITORIAL NOTE.—This article consists of two chapters from Dr. Perry's book on "The Injured Hand", the manuscript of which we have in our possession. Other chapters will be printed in "Clinical Medicine" from time to time. We are sure that every member of the "family" will find this series of intense interest.

II. Cleansing the Injured Hand

PROBABLY every accidental wound is an infected wound. Out of several hundred of such injuries only two were found to be noninfected when subjected to bacteriologic tests. The infection usually is conicident with the injury, and it is doubtful whether any method of wound cleansing has yet been devised which will surely and immediately eliminate this primary infection.

The rapidity with which infection can spread from one portion of a wound to another, or from an infected wound to adjacent healthy tissues, is startling. Schimmelbusch inoculated the tip of a mouse's tail with anthrax germs and ten minutes later cut off the tail at its root; the mouse died of anthrax. Reichel maintains that one minute after inoculation the most thorough antiseptic treatment is powerless to prevent infection. What, then, can be expected where an injury is rarely seen by the surgeon until fifteen minutes after its infliction, while oftener it is thirty minutes or an hour?

Observation and experiment have proved that powerful antiseptics devitalize the tissues and do more harm than good. This is particularly true of carbolic acid, cresylic acid and corrosive sublimate. These are cited because they are the ones most commonly used by the profession and laity, and the most dangerous. If it be true that these antiseptics cannot prevent or counteract infection and that they by their destructive action upon the tissues really tend to create a field for the development of germs, why use them at all? The question is a proper one, and my answer is, *Don't!*

Don't use carbolic acid.

Don't use cresylic acid!

Don't use corrosive sublimate!

But if not these, what would you use? It is desirable to use an antiseptic which will prevent further infection and the further development of infecting germs already in the wound. We want a protective and preventive which is not caustic or irritating, something that will cleanse without doing

injury and which will guard against the assaults of extraneous germs.

Surgical Cleansing of the Injured Hand

The vast majority of injured hands are those of mechanics and laboring men and come to the surgeon smeared with machine grease, paint, varnish, mud, mortar, sawdust, flour, tobacco quids, cobwebs, and many other substances which are a part of honest labor or which have been applied to the wound in well-meant but misguided efforts to stop bleeding or ease pain. To remove these substances I use three applications:

Warm saline solution,

Gasolin, plain and iodized,

Warm solution of mercuric cyanide.

The saline solution (a teaspoonful of clean table salt to each pint of boiled water) is familiar to all and needs no special mention. It is used to remove the grosser portions of the dirt—the term "dirt" being here employed as applying to all matter out of place.

Use Gasolin to Remove Oil and Grease

In cases where the injured parts are soiled with machine grease, paint, oil, varnish and similar substances not removable by water, resort is had to ordinary commercial gasolin. The use of gasolin for this purpose, while not general, is not a novelty. I have so utilized it for more than twenty-five years; others have used it, and it is now quite generally used by surgeons who have much factory, machine-shop or railroad surgery. While acting as a solvent for fats, oils, gums, wax and resins, it is, to a certain extent, antiseptic, besides causing no pain; hence it makes an excellent detergent when the parts are besmeared with such substances.

The addition of resublimed iodine to the gasolin (one dram to the pint) increases its antiseptic powers without affecting its detergency. Iodized gasolin should be freshly prepared, in small quantities, at the time of use.

To use the gasolin, pour it directly upon the wound from a small-mouthed bottle, letting it wash all over portions of the injury; also make a mop of absorbent cotton or gauze, saturate with the gasolin and gently rub over the parts until cleansed. If the dirt be unusually tenacious, a soft tooth-brush may be used. The body-heat causes the gasolin to evaporate from the surface, leaving the parts clean and dry.

Gasolin is almost as efficient as hydrogen peroxide in breaking up adherent clots, and is not painful.

By way of caution: The surgeon must remember that gasolin vapor is highly inflammable, even explosive; also, that if it gets into the eye, ear or closed cavities it may cause pain, just as do ether, chloroform and other quickly volatilizing liquids. Benzin may, in an emergency, be used as a substitute.

Mercuric-Cyanide Solution

The mercuric cyanide solution has been a favorite cleansing solution with me for many years. Since I first called attention to its use in antiseptic surgery (in 1898) its use has become quite general because of the following advantages:

Mercuric cyanide is freely soluble in hot or cold water, and in alcohol; it does not stain the finger-nails or give rise to eczema or other inflammations of the skin; it does not coagulate albumen in blood, mucus, purulent or other discharges or excretions; it is not precipitated or decomposed by soap; it does not corrode steel, nickel or silver; it can be used in any kind of a vessel—enameled, porcelain, tin, papier-mâché or wooden; it is inexpensive.

Some of my critics, especially the laboratory bacteriologists, have maintained that mercuric cyanide is not an antiseptic, that it will not inhibit germ growth; but to these I say that I have used it for now more than ten years, and the results have been more satisfactory than I obtained from other antiseptics. The practical experience of many other surgeons corroborates my own.

Other critics say it is too dangerous an antiseptic for general use, that its lethal effects are too sudden should one of the laity accidentally swallow some of it. But these should remember that this agent is for the use of surgeons and not of the laity, that the latter have no business with it, and that in

the hands of a competent surgeon it is as safe as an amputating knife or other instrument.

In cleansing the parts around a wound it is sometimes desirable to use soap, and I have found "mechanics' soap," a coconut-oil soap plus fine sand, or rather stone, as good as any of the higher-priced antiseptic soaps. If desirable, an antiseptic solution may be used as a rinsing application after the soap.

Hydrogen peroxide I do not often use in primary cleansings, since little difficulty has ever been experienced by using the methods just described. Before attempting to cleanse a wound, always apply a tournequet to prevent further bleeding.

II. Examination of Injuries

Having cleansed the wound of all extraneous matters, the surgeon should see to it that his own hands are again rendered surgically clean, after which he may proceed to examine into the nature and extent of the injuries.

In making such examination, use the fingers, rather than instruments, as much as possible, but gently, very gently, depending upon the tactile sense to determine what conditions exist, using the eyes, ears and nose as aids to the sense of touch.

The *tactus eruditus*, the educated sense of touch, is nowhere of greater importance than in surgical practice. While manual dexterity is advantageous in the technic and mechanical work of the profession, the great importance of a correct diagnosis speaks for the value of the educated touch. This *tactus eruditus* can be rapidly and readily acquired in the everyday experiences if the student or practitioner will only make the effort to determine size, shape, surface qualities and other physical attributes by the touch, thus learning to identify objects by their "feel."

Care in Handling

Simple superficial wounds will require very little handling; incisions, punctures and lacerations due to known causes calling for nothing more than a careful inspection. Where the presence of a splinter of wood, metal or glass is suspected, a very gentle digital examination will discover the foreign body more readily than a rough examination or probing with a metallic probe.

In searching for deeply imbedded foreign bodies, use the probe as little as possible. If the body be a bullet, needle or other metallic substance, use the x-ray. The indiscriminate use of the probe in bullet wounds, fractures, necroses, sinuses, etc., cannot be too strongly condemned. Modern methods are so much more superior, definite and less dangerous that the probe has been to a large extent rendered obsolete and should only be resorted to when other methods are not at command.

The tactile sense should easily detect fractures and dislocations if the parts be not swollen too much, and in open wounds of joints should be able to determine the condition of the cartilage surfaces. Should it be necessary to use instruments in examining a wound, they should be sterilized.

The Sense of Smell

The sense of smell is of much assistance in determining the condition of wounds, as all emit characteristic odors of fresh blood, "healthy" pus, tissue necrosis, etc., according to their age, stage of healing, infections and dressings.

The odors given forth by wounds may be more or less modified by those natural to the body, due to the perspiration and other cutaneous secretions. In ordinary persons this odor is sulphurous, especially so in red-haired and freckled individuals; brunettes possess a prussic-acid and blondes a feeble musk odor; fat persons have a more pronounced odor than lean ones, the former frequently having an oily odor due to excessive fatty acids in the sebaceous secretions. Race, sex, age, personal cleanliness and complicating skin diseases also influence the odors of wounds.

Various foods and some medicines taken internally impart odors to the skin secretions which may modify the normal wound odors, and local applications to the seat of injury may be expected to do so.

A recent undressed wound presents the odor of fresh blood, which, if there be union

by first intention, gives way to that of the dressings applied. A wound bathed in pus from healthy granulations gives a characteristic odor which is not offensive; if, however, there be necrosis, decomposition of the discharges or maceration of callosities or scabs, there is a very pronounced and disagreeable odor of putrefaction. I have noticed in wounds in syphilitics a characteristic odor, also in those made by ice-cutting tools, and in human bites. Wounds infected with glanders or diphtheria present the peculiar odors of those diseases. All these things the experienced surgeon bears in mind.

Macroscopic inspection of wounds will reveal much concerning their extent and condition, but the eye must be supported by the touch, as there are many things in an injury which the eye cannot detect and many appearances which are highly deceptive. In cases where there is doubt as to the nature of infection resort is had to bacteriologic culture and microscopic examinations.

A most important adjunct to the ocular examination of injuries is the x-ray apparatus whereby fractures, dislocations, bone inflammations and necrosis can be definitely determined and metallic bodies located.

The Direct Treatment of Choleriform Disease

With Special Reference to Summer Diarrhea

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois
Dean and Professor of Therapeutics, Bennett Medical College

EDITORIAL NOTE.—Professor Waugh has perhaps done more than any other man to popularize the use of the intestinal antiseptics in the treatment of summer ailments. But his armamentarium does not begin and end with the sulphocarbolates. In this article he tells what these salts do in these cases, but also outlines a complete scheme of treatment.

WHILE the discovery of pathogenic microorganisms as the cause of various infectious maladies in many instances has not resulted in the cure of these diseases by directly attacking the microbes, this can not be said of the cholera-group. Here we have opportunities superior to those presented by many affections of similar character, in that the affected tract is within the reach of direct, local medication.

We have here as the principal factors of the attack the operation of a swarm of invading microorganisms in the alimentary canal—a gastrointestinal mycosis—an excessive irritation of the corresponding terminals of the pneumogastric nerve, and the resulting toxemia. We have three points against which we may direct our therapeutic attack.

Sulphocarbolates Control Summer Complaint

Years before the discovery of tyrotoxicon, before the establishment of the modern germ-theory, it had been fully proved by abundant clinical trials that this group of maladies, termed collectively summer-complaint, could be quite certainly controlled by the administration of pure sulphocarbolates, notably those of zinc, sodium or lime. It was further shown that these salts were practically innocuous if in a state of chemical purity, and could be given in increasing doses with impunity until the desired result may have been achieved. No single case of hemoglobinuria has ever been reported from the use of these salts, when pure.

Note the reiteration of the demand for *chemical purity*. It has the deepest significance. The writer first commenced to employ these salts in internal medication in the year 1880. About every other patient reported the medicine too irritating to be retained on the stomach. Inquiry showed that the irritation came exclusively from the product of one of the two great manufacturing establishments then suppyling the sulpho-

carbolates, and the nonirritating variety from the other one.

As an increasing number of physicians took up the use of this remedy the field of its application widened, more irritable stomachs were discovered, and the need for chemical purity grew more imperative. The market-supply was almost universally so bad that trials without specification of the maker were reasonably sure to result in disappointment. From this I must except the product of the Rosengarten house, which from the first proved better than any other, and quite satisfactory in nearly all cases. Another manufacturer, even when the consumption of the salt had grown to tons, replied to complaints of their product that he was "not aware it was used in human medical practice." This was the lay view of the importance of chemical purity. Physicians took another view, and among the best preparations the writer employed was furnished by the house over which Dr. Upjohn presided.

Dr. Abbott likewise early recognized the vast importance of the matter, and after vainly endeavoring to secure a chemically pure supply was compelled to install machinery and produce the sulphocarbolates himself. This was after he had failed to get a sufficiently pure article even by paying $3,000 a ton for it when the retail price was 43 cents a pound.

How very commercial this is! I acknowledge it. My reason—not excuse, for I need none—is that it means life or death to the little patients.

How to Treat Summer Complaint

Take a child in its second summer, with the early stages of "summer complaint." Empty its bowels by castor oil, rhubarb, laxative salines—what you will—I like a little calomel followed by rhubarb. Then give zinc sulphocarbolate, gr. 1-6 ever hour (rising to grs. 2) till the stools are normally offensive only; then often enough to keep them that way. An offensive stool is the signal for a similar emptying and disinfection at any time thereafter. Diet: No food at all for twenty-four to forty-eight hours except pure cool water. Then begin cautiously with a little barley or rice water, or egg-white in water, or pure freshly pressed fruit juice. However, give only one kind of food for days, then change to one entirely different—from nitrogenous to starchy, or otherwise. The object is to starve out any microbes that may have escaped the disinfectant; and as their descendants learn to utilize one type of food, change to a different one. (*Brunton.*)

The ailing child must breathe pure air. Notwithstanding the acknowledged fact that this malady takes its origin from an intestinal invasion, the deadly influence of impure air is one of the most notable features of the disease. A cool, dark, quiet, well-ventilated room during the hotter hours is an element in securing recovery too important to be forgotten.

In the More Severe Stages

In the severer stages we have the true choleraic complex: incessant purging and vomiting of rice-water-like material, rapid shrinking of bulk and strength, muscular cramps, and so on.

Here the second indication for treatment becomes prominent, for this picture is that of excessive irritation of the gastric terminals of the vagus; and atropine or hyoscyamine is the direct remedy. Give 1-1000 to 1-500 of a grain, hypodermically, and repeat every hour until the evidence of toxic action is presented by the flushed skin. This treatment was introduced by Alexander Harkin for Asiatic cholera, and it has proved capable of controlling the condition in cholera infantum and cholera morbus as well. No addition of morphine is needed.

As the acute attack subsides, we have to deal with its results, a subacute gastro-enteritis. The indication changes, and we now may utilize bismuth, which possesses unequaled powers as a local application to inflamed mucous surfaces. Give the subnitrate in doses of from 1 to 5 grains every hour. Very small doses of morphine or codeine quiet excited peristalsis, the second being preferred, as interfering less with the reestablishment of normal digestive secretions and with toxin elimination. Give

codeine 1-2 to 1 milligram (0.0005 to 0.001) every two to four hours, and the effect of these little doses will be satisfactory, while larger ones may disastrously narcotize the little patient—or rather victim. Emetine now frequently is used in doses of 1-2 to 1 milligram every two hours. It soothes the irritated bowel, depletes the inflamed tissues, and aids in reestablishing the normal secretions on which recovery depends.

Tonics Which Are of Value

Tonics would be useful if the conditions permitted their administration. And here is one of those nice appliactions that make the active principles so popular with those who study them: strychnine takes up the slack, but brucine is also a local anesthetic of no mean powers, and just suits the irritated stomach. Give 1-2 to 1-4 milligram (0.0005 to 0.00025) every two to four hours. When iron can be borne, quinine hydroferrocyanide in doses of 1-2 or 1 milligram every two hours answers admirably. The value of quassin as a gastric tonic is only to be appreciated when one gives it in excessively minute doses, since larger ones are disagreeable and apt to irritate. Give 1-2 milligram every two to four hours, in solution, disguised if need be (but rarely the case) by a tang of licorice.

The child may need more food than its convalescing digestive system can manage, and then a daily rubbing with hot goose-grease is a homely and valuable resource. Under the conditions the skin absorbs the oil with an astonishing rapidity and the infant's plumpness quickly returns.

Will all recover under this treatment? I doubt it. There are persons whose vitality is close to the limit of requirement at all times, whose organs are able to fulfil ordinary needs but no extraordinary calls. A little push may carry them across the line. I have seen women die simply because they did not care to live. People holding on to life by the narrowest margin, victims of chronic disease of the heart, lungs, kidneys, liver, whose stock of life-force has been exhautsed and their reserve dissipated by working on stimulants till even they can develop no more, may be expected to die at the slightest excuse. There always will be deaths from curable diseases.

The death-blow may be inflicted by the attacking malady before the doctor has time to get to work. The shock may be beyond the powers of the system to institute reaction. Remedies act only by and through the natural powers of the body, and if they can not succeed in arousing these the case is hopeless.

Stimulants May Be Needed

In some cases this vital reaction may be induced by the powerful local stimulus of capsicum, camphor, ether, and the volatile oils, applied to the stomach. The Hindoos had a saying that the life could be saved if the tears could be brought to the eyes, and to meet the sudden and overwhelming onset of cholera, dysentery or pernicious fevers they administered mixtures of these irritants in concentrated form. I have often utilized the same principle with advantage, giving a mixture of spirit of camphor, tincture of capsicum, oil of cajuput and chloroform, 2 drams of each, and ether, 1 ounce—a teaspoonful, *undiluted* (and without a drink after it), and repeated if necessary. With atropine hypodermically this treatment often succeeds.

Among my notes from foreign clinical reports I find the following:

Cholera Asiatica.—A man, aged 30, seized with severe colic. He was in bed, pulse miserable, coldness general, voice extinct, eyes sunken, colics atrocious, cramps in the members; digestion deranged for four days. Between early morning and 3:30 in the afternoon he had had at least thirty stools. He was given hot tea, and the vomiting and coldness increased. I gave 1-2 milligram each of strychnine and quinine arsenates every quarter hour. After six doses the skin was warmer and the colic less severe. The strychnine was then stopped. Next day he was discharged as cured. (Labrousse, Algiers.)

Cholera Morbus.—A man was seized with acute cramps in the legs, vomiting and purging of colorless liquid, tongue cold, eyes sunken,

body cold, yet the patient complained of a burning internal heat. Treatment: Stimulating liniment over stomach. Quinine arsenate, 1-2 milligram every quarter hour, hyoscyamine, 1-4 milligram every hour. The patient took 48 doses of the quinine. Reaction set in, and by night he was well. (Gollamier).

Madam X., after some days' malaise, was taken with vomiting and diarrhea, suddenly becoming choleraic, with cramps. In two hours she was voiceless, cyanosed, face Hippocratic, skin icy, veins prominent, almost pulseless, breath nauseating, epigastrium and belly very tender, the ejecta resembled cooked rice in clear liquid, and death appeared imminent.

Dry frictions were made with hot towels. Every five minutes a soupspoonful of hot tea with ether was given, and every quarter hour 1-2 milligram each of the arsenates of quinine and strychnine, and 1-4 milligram of hyoscyamine, together. In half an hour the skin began to warm and the vomiting was not so continuous. In about an hour the vomiting had lessened notably, the stools were less frequent, and the ejecta were altered. In two hours vomiting had ceased and the few stools were of bilious appearance. The skin now was slightly moist but not yet warm; there was some abdominal pain and cramping. The doses as above were then given every half hour until 6 p. m., when the cramps ceased and the pain subsided.

The patient then was given 1-2 milligram of quinine arsenate and 1 milligram of quinine hydroferrocyanide. She took and retained a little soup. Soon the cramps returned, she had bilious stools, and the situation was yet quite painful. At 11 p. m. the skin again cooled and the cramps again affected her limbs, but they were relieved by energetic friction. The granules were continued until 1 a. m., when she went to sleep for some hours.

In the morning there were bilious stools and nausea. A Gram of ipecac caused free vomiting and purging, after which a complete calm supervened. No urine had been passed. The prostration was extreme, the reaction moderate, with no congestive phenomena. The two quinine salts were continued from noon till 10 at night. Passing cramps in the limbs came on in the evening. Next day no urine was voided, and the granules were continued hourly with the addition of digitalin. The urine appeared that evening. By the fourth day the woman was well. (Goyard.)

I do not approve of the excessive administration of arsenic. The symptoms of acute arsenical poisoning closely resemble those of cholera, and the danger of overdosing with this drug is evident.

HOPE SEES A STAR

By HOMER CLARK BENNETT, M. D., Lima, Ohio

There are times when the sky of our world is o'ercast,
And troubles and sorrows crowd on thick and fast;
There are days when the future looks misty and dim,
And the cup of misfortune is f-ll to the brim;
There are hours when all earth appears dreary and bare,
And our lot seems o'erburdened with great loads of care;
There are moments that come in the lives of us all,
When calamity hovers, and hangs like a pall;
But while we are groping in the dark night of fear,
'Tis Hope sees a star, shining brightly and clear.

'Tis Hope tells us ever to strive with our might,
And keeps up our courage to win in the fight;
'Tis Hope bids us always to push on like men,
And as oft as we fall, we may rise up again;
'Tis Hope brings us cheer, and gives us more heart,
To look for the bright side, and take a fresh start;
'Tis Hope dulls the sting of remorse and regret;
And helps past the places which worry and fret;
Oh, rob us of Hope, and our day turns to night,
But Hope sees a star shining clearly and bright.

Painful Feet and How to Treat Them

By JOHN L. PORTER, M. D., Chicago, Illinois

EDITORIAL NOTE.—Time was when every pain in the feet was referred to "rheumatism". Now we know that in many cases the pain is due to some other cause, such as weakening of the arch, or flat foot, metatarsalgia, gonorrhoal arthritis or some condition of which the "doctors of the old school" knew nothing. Dr. Porter tells us about these little-understood diseases and suggests methods of treatment.

I HAVE chosen the general title, "Painful Feet," for my subject because it is a convenient descriptive term for a group of affections of the foot which vary very much as to their etiology and pathology but all have the common symptom of pain. In fact, the pain is the *one important* thing about them all, from the patient's point of view and for which he seeks relief, in nearly every case. It is the recognition of the various diseases and conditions which produce pain in the feet that I wish particularly to call your attention to.

To begin with, it is because the feet have to bear the weight of the body and the arches and levers composing the foot are subjected to such a strain in supporting and propelling the body that the pain is located in the feet. In many conditions underlying painful feet the hands would be the seat of the pain if we were obliged to walk upon them. And our very dependence upon our feet in getting about our daily occupation lends added importance to affections of those extremities. We can suffer considerable pain and disability in the hands or other portions of the body and still keep busy, but when one's feet go back on him he is "down and out" in every sense of the term.

Make a Careful Examination

And right here at the outset I want to emphasize the necessity of careful examination in every case, not only of the feet but of the patient. Merely to listen to a patient's history of chronic pain in his feet, steadily increasing and with more or less disability, and then to tell him he has rheumatism and proceed to fill him up with salicylates, sending him on his way, without even examining him or his feet, is surely a travesty on the practice of medicine, but an altogether too common one.

Surely, rheumatism, like charity, covereth a multitude of sins, but chiefly in medicine—sins of omission. Probably in 75 percent of the cases of painful feet coming to our attention the patients give a history of having been treated for weeks or months for rheumatism, and when the matter is sifted to the bottom and a correct diagnosis is made, less than one percent is found to be due to that disease.

Pain and rheumatism have, in the past, been so generally treated as synonymous, at least where joints were concerned, and our medical conception of rheumatism has been so hazy, that the term has been a very convenient one to use when we did not know what the matter was; but with our better knowledge of joint disease and of the pathology of true rheumatism it is time to realize that, so far as painful feet are concerned, the chances are 75 to 1 against that being the actual trouble.

Brief Consideration of the Anatomy of the Feet

Without doubt the most frequent of the painful foot affections is flat foot of some degree. The term flat foot is generally used to designate a breaking down of the longitudinal arch, but clinically there should be recognized three different degrees of flat foot, and for the sake of clearness I would call them, (1) weak feet, (2) flat feet, and (3) rigid feet.

Weak feet are those in which the arch becomes obliterated when the patient stands, due to relaxation of the tarsal ligaments, but in which some active pronation and supination is still possible. In such cases

the victims are apt to complain of pain in the latter part of the day and of extreme fatigue upon long standing or walking; and the pain is as frequently referred to the dorsal and outer surface of the foot as to the inner plantar region, although tenderness about the scaphoid is naturally present. Such feet are seen more frequently in children and young adults. Support of the arch by strapping in the supinated position and the wearing of a proper shoe with a triangular heel usually results in a cure if the patient will exercise the foot daily in a way to strengthen the tibial muscles.

What Is Flat Foot?

Group 2, genuine flat foot, is a condition in which the arch is flat when the patient is not standing, active pronation and supination is lost, and passive attempts to supinate the foot cause pain. Tenderness, often exquisite, is found about the scaphoid and os calcis, and the patient walks with a halting gait. These patients often complain of severe pain on first arising, but which wears off later after they have been about with shoes on; but later in the day they may have pain up the leg to the knee or even to the hips, and occasionally severe backache, especially in the lumbar region.

Such feet require, as a preliminary treatment, prolonged rest and immobilization in a supinated position, followed by a rigid support to be worn in a properly made shoe. My custom is to place a triangular felt pad under the scaphoid and then to put the feet up in plaster-paris in as extreme supination as the patient can stand. This is kept on for from two to four weeks, according to the severity of the case, and it is really astonishing to see how much improvement is secured. The patient is made perfectly comfortable at once, and usually when the cast is removed the foot is quite freely mobile, pronation and supination have returned, the tenderness is gone, and the patient considers himself able to begin walking at once. But he will not be, for unless a proper support is at once given to the foot the trouble soon recurs. And right here is the proper place to describe what is a proper support and to correct some popular ideas about foot-plates.

Proper Supports for the Feet

I find that the average practician has the idea that all cases of flat feet require plates, that it makes little difference what kind of plate is used, and that if he sends the patient to a shoe store to buy an arch-support, as they call them, or tells him to go to some instrument maker and have some plates made, he will be relieved. All three of these ideas are erroneous. *Some* cases are best treated by foot-plates at once, and many cases are benefited by their use during some period of the treatment, but all the foot-plates that have been forged since Tubal Cain would not only be of no value in many cases but even positively harmful.

When the patient applies to the shoemaker for a support he picks out one of the various styles in stock that he considers of the proper size, puts it into the shoe and collects from twenty-five cents to a dollar, and sends the sufferer on his way blissfully ignorant that not all has been done that is needful. The plate possibly may give relief for a time, or it may become so painful in a few hours that the purchaser cannot wear it. In ninety percent of the cases they have to be discarded eventually and the patients are forced to seek more expert advice.

When such a patient is sent to an instrument maker, the latter's usual method is to make, on paper, an outline drawing of the patient's foot, over this he traces an outline of the shoe, and with the aid of these he traces an outline on a piece of metal, called a "blank," which he puts into a vise with a wooden block shaped like the arch of a foot, and over this he hammers out the particular style of foot-plate he is accustomed to make. This plate he puts under the patient's foot, asks him to stand upon it, and if it does not hurt, he puts it into the shoe and tells him to wear it. If it hurts, he raises or lowers the arch, or bends the edges until the contrivance feels comfortable. Occasionally he makes a plate which gives support in the right place, and

then the patient, by wearing it constantly and occasionally having it elevated, gets along very comfortably.

However, as a matter of scientific accuracy and anatomic good sense, the artisan might just as well put a china plate into the vise and try to hammer out a set of false teeth. For no two feet are alike, and a plate to be curative must be made with an accurate knowledge as to where the trouble lies anatomically and for the particular case in hand.

The Rigid Flat Foot

And now we come to the third, and most severe, form of flat foot, the rigid flat foot. In these cases the foot is pronated and cannot be either actively or passively supinated. The tarsus, especially the scaphoid and astragalus, are rotated inward and downword—often to such degree that the scaphoid comes in contact with the floor, the astragalus is seen projecting beneath the skin, the arch is entirely obliterated, and the patient walks with a halting, shuffling gait and with the feet turned out.

Pain often is less severe in these cases than in either of the first two classes, because the stage of severe painfulness is past, as the ligaments are relaxed and stretched to their utmost and the foot has a bony support; but the patient at this stage is extremely disabled, can walk only short distances without being fatigued, and he can not run at all. All movements at the ankle are limited, and, in fact, the foot is little else than a stiff, unyielding stump for the leg.

Such cases can only be improved, the foot can never be restored to its normal flexible, elastic condition. Feet like these usually are seen in adults past thirty-five, although occasionally they are found in young adults, while I have seen them in the case of two or three children at about the period of adolescence.

Surgical Treatment of the Only Value

The only treatment that avails anything is surgical. The patient must be given an anesthetic. When complete muscular relaxation is secured, we often find that, with a McCurdy or Thomas wrench, the adhesions between the bones can be broken up, the shortened ligaments torn and stretched, and a fairly good restoration of the tarsus secured by sheer muscular force. In many of these cases the peronei muscles and tendons have become so contracted that they offer a great obstacle to reduction. Here excision of one-half to one inch of both the peroneus longus and brevis just behind and above the external malleolus facilitates the reduction very much. Where these measures are insufficient, a cuneiform osteotomy, removing a bony wedge from the internal border of the tarsus or an astragalectomy is the only resort.

Whatever procedure is undertaken, it must be thorough enough to permit the foot to be put in plaster-paris in a supinated position. This is maintained for from four to eight weeks, depending upon the amount of traumatism that has been inflicted; and it is often surprising to find how much the foot has improved in a feeling of comfort, in usefulness and motility following such severe measures.

After the tissues have entirely recovered from the operation, some form of rigid support is devised for permanent use, and the patient is encouraged to begin putting a little weight upon the feet, massage, hydrotherapeutics, and passive motion also being instituted. Some of these disabled feet are thus made much more comfortable, elastic and useful, but it requires from two to six months to secure results that will permit the patient to walk about with his shoes on again.

Gonorrheal Arthritis Is Common

Gonorrheal arthritis involving the tarsal articulations, and especially the articulations of the os calcis, are much more frequent than we used to suspect; in fact, that peculiar condition known as painful heel is so often the result of gonorrheal infection that we suspect it in every instance. Baer, of Johns Hopkins, has demonstrated the gonococci in scrapings from the periosteum in quite a number of these cases.

Besides the os calcis, any of the other tarsal joints may be involved, and as the gonorrheal inflammation affects the periarticular more seriously than the articular tissues, we find that the structures involved in the affected foot are softened, boggy and relaxed during the acute stage of the trouble; consequently a degree of flat foot or weak foot usually accompanies gonorrheal arthritis. Another peculiarity of these cases is that the arthritis usually develops after the subsidence of the acute urethritis, often during the gleety stage.

The history of the case is usually that of a sudden development of pain about the arch of the foot, especially on walking, which grows steadily worse, until the patient becomes incapacitated. With this there often is a slight swelling and redness, and if a recent urethritis is confessed, a diagnosis of gonorrheal rheumatism promptly can be made. But in many instances the arthritis occurs so long after the urethritis that both patient and physician fail to attach any causal relation to the latter, and especially in the cases which develop slowly and without acute inflammatory symptoms, as many do.

Later the foot resumes a practically normal appearance except with some pronation and flattening of the arch, but the patient still complains of great tenderness under the heel, corresponding to the tubercle of the os calcis. This pain is felt only when he walks, but examination reveals greater or less tenderness all about the os calcis and even of the scaphoid. A radiograph of the foot later in the disease, several months after the onset, often reveals bony exostoses at the seat of tenderness, usually under the os calcis and sometimes also at the point of attachment of the tendo Achillis.

Morton's Metatarsalgia

This is a cramp-like, exceedingly painful affection of one or more of the metatarsophalangeal joints. It occurs more frequently in adults, and in women more often than in men. The pain comes on suddenly and almost invariably when the patient has his shoes on, and it is described as cramp-like and excruciating, often radiating along the foot and up the leg. The patient has to sit down at once and remove the shoe and rub and squeeze the front of the foot and work the toes, which usually gives relief. The attacks may occur only at long intervals or may be so frequent as to disable the patient. The trouble is caused by the flattening of the anterior or transverse arch of the foot when compressed by the shoe so that the ball has not room to spread (analogous to the pain produced in the hand by squeezing the metacarpophalangeal joints when relaxed). The third and fourth joints are most often the seat of the pain.

"GENIUS is really only the power of making continuous efforts. The line between failure and success is so fine, that we scarcely know when we pass it—so fine, that we are often on the line and do not know it. How many a man has thrown up his hands at a time when a little more effort, a little more patience, would have achieved success! As the tide goes clear out, so it comes clear in. In business, sometimes prospects may seem darkest when really they are on the turn. A little more persistence, a little more effort, and what seemed hopeless failure may turn to glorious success. There is no failure except in no longer trying. There is no defeat except from within; no really insurmountable barrier save our own inherent weakness of purpose."

The Treatment of Feet Ailments

By EDWARD A. TRACY. M. D., Boston, Massachusetts
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EDITORIAL NOTE.—This is another chapter in Dr. Tracy's interesting series on the "specialties" which the general practitioner may study with a view to the profitable enlargement of his office practice.

IN this paper the subject of the treatment of feet ailments from the view-point of the general practician will be given. By following the advice given, results can be gotten that will please the practician as well as his patients.

The knowledge of feet troubles is readily acquired at first hand, for every physician has at his command plenty of clinical material among his patients. The field is awaiting cultivation, and the doctor who gives a little time to it will quickly reap an abundant harvest of grateful patients whose efficiency in their work is increased by his ministration in recognizing and curing ailments that not infrequently cripple.

From the view-point of preventive medicine, a knowledge of the cause of feet ailments is of immense importance to the community, and the doctor's duty to society is here clear. He should know how to advise his patients and the community what to do to maintain foot-health and strength. This duty is also a patriotic one.

The Footwear of the Japanese

Recently I found occasion to examine the native foot-wear of the Japanese. Their house-shoes are made of cotton, the soles of a strong canvas texture. Figure 1 shows the outline of the sole of one of these cotton shoes. The shoe follows the shape of the normal foot. There is a division between the big toe and the remaining toes, analogous to the division between the thumb and the fingers in our mitts. The purpose of this division is to allow the big toe to grasp the leather thongs of the sandals, which are worn when the people leave the house. After walking the streets with the sandals, on entering a house they are left at the threshold, this being done by simply relaxing the toe-grasp of the sandal-thongs.

What foot-wear could be more hygienic? The point to which I wish to draw attention is the perfectly normal shape of the Japanese foot-wear. In the care of the feet the Japanese are centuries ahead of us. On examining their foot-wear, I could not help ejaculating reverently, "God help us if we ever war with those people." That true missionary, St. Francis Xavier (sixteenth century), recognized the acumen of these people, for when writing home to his superiors for more missionaries, he asked that only bright men be sent, "as the only way to convert Japan is through the intellect."

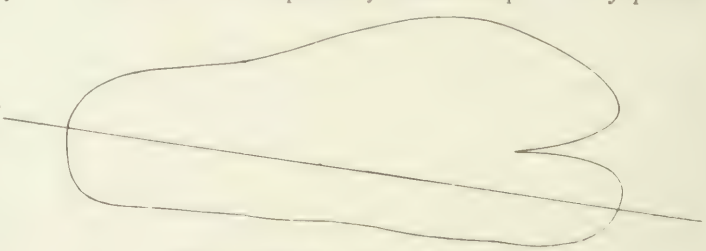


Fig. 1. Sole of Japanese House Shoe

Badly Shaped Shoes Make the Feet Ailments

The greater part of feet ailments are acquired, and due to wrongly shaped shoes. Style, for the most part, governs the shape of shoes, and while this condition of affairs lasts there will be no dearth of foot troubles. This condition of affairs will certainly change in time, when the medical profession as a whole understands the correct shape for shoes and teaches the public the right care of their feet.

An analogous case is that of the long-tubed nursing bottle, formerly used in infant feeding. Specialists recognized the immense amount of intestinal disease caused by the use of this contrivance and instructed the medical profession in general on the

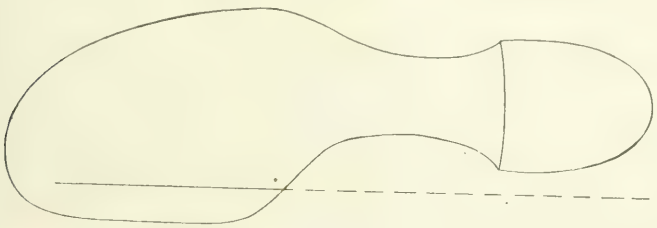


Fig. 2. A Sole Outline, Abnormal

subject, and the doctors in turn instructed the great public, with the result that in the cities the long-tubed nursing bottle has become a curiosity in the households.

And so with shoes. Orthopedic surgeons are teaching the profession the defects of those in common use, and the latter in turn will teach the public the essentials of good foot-wear, so that in time the nation will have feet that for strength and form will equal those of the ancient Greeks. Another laurel will then be added to our profession, making it still more worthy of the esteem of all the world.

Fully 95 percent of all foot deformities are caused by wrongly shaped foot-wear. The shape of the shoe should conform to that of the normal foot. In the normal foot the axis of the big toe prolonged backward passes through the middle point of the heel (Meyers' line). We should be able to get this line in every correctly shaped shoe. The greater the divergence of the line in which the big toe must lie in the shoe from Meyer's line, the greater the divergence from normal in the shape of the shoe.

Some Common Faults with Shoes

A few outlines drawn from the soles of shoes commonly sold will make plain what is meant. Figures 2 and 3 illustrate common-shaped soles. It can readily be seen that the wearing of these ordinary-shaped shoes will deflect the big toe toward the middle line of the foot. This deflection in time becomes an extreme case of hallux valgus. The minor degrees of this deformity are so prevalent that in an active practice of twenty years I have never seen an adult foot without it. The commonness of this deformity of the adult foot is explained by the abnormally shaped shoes that are universally sold. In other words, the foot is the creature of its environment, is deformed because of the deforming shoes worn.

The correct shape of the sole is illustrated in Fig. 4. It gives the outline of the sole of a normal shoe, a shoe which will preserve the normal shape of the foot, and one absolutely devoid of deformity. This is the shaped foot-wear that should be universally worn, and which, with the spread of accurate knowledge, undoubtedly will come into general use.

Considerable has been written here al out

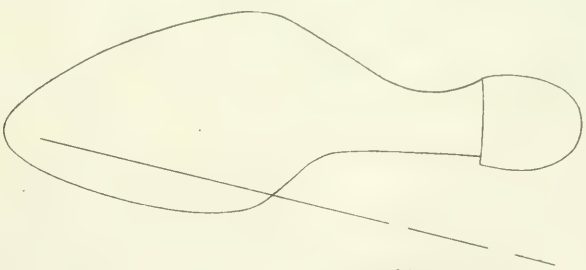


Fig. 3. A sole outline, very abnormal but now very fashionable

shoes, because their importance as the cause of most feet ailments is not generally realized, while in the cure of such troubles a correctly constructed shoe is essential.

Diagnosis of Flat Foot

One of the most common of feet ailments is flat foot. The accurate diagnosis of this trouble by means of the foot-print is easy. My method for taking a foot-print is to paint the sole of the foot with a thin starch paste and instruct the patient to bear all his weight on the painted sole placed on a sheet of light-colored paper or cardboard supported on a hard level surface, the foot

then being carefully lifted from the paper bearing the imprint. The impression of the other foot also is taken. The imprint is allowed to dry (by holding a few moments near a source of heat) and then painted over with a solution of iodine in water, made by adding 1 dram of tincture of iodine to about 6 ounces of water. The imprint of the foot immediately appears in purple, to the pleased astonishment of the patient, if this is done in his presence. These imprints, however, fade after some time, hence I much prefer to use the paste and developer devised for the purpose by Dr. Geo. Starr White of Yonkers, N. Y. The imprints produced by his materials are a beautiful blue-black and permanent.

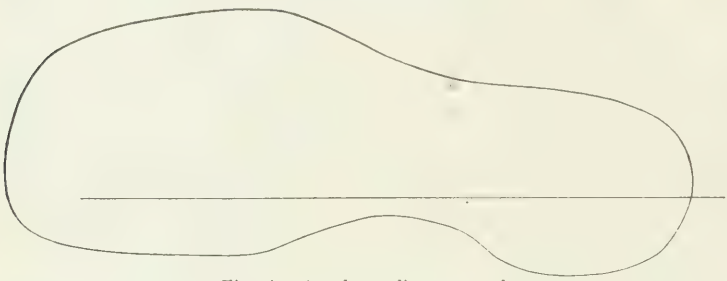


Fig. 4. A sole outline, normal

The diagnosis of flat foot and the degree of it present is made by comparing the prints obtained with the imprint made by a foot with a normal arch. A print of a foot with a normal arch is shown in Fig. 5. A moderate degree of flattened arch is shown in Fig. 6. Figure 7 illustrates a case of flat foot.

An important point for the general practician to note in the etiology of flat foot is the fact of its *frequent origin from a period of lying in bed* (decubitus), for any reason, for ten or more days. This weakens the leg muscles, and it is these muscles that hold up the arches. Upon the patient getting up and walking after such a period in bed, the weakened muscles of the leg frequently are strained, lose their muscle tonus, and a flattened arch—incipient flat foot—is the result.

The corollary of this observation is that the practician should *prevent this condition* by prescribing a suitable support for the arch until the leg muscles have regained their full strength. This indication is perfectly met by the special arch-support made by the Normal Shoe Company of Boston.

The same indication is met by cutting a piece of harness-felting about an inch thick into shape to fit under the arch and strapping it on with adhesive plaster. The strips of plaster should be applied up and down the leg so as to hold the foot inverted. This strapping and felt application should be renewed weekly for a couple of months. The special supports mentioned (sold to doctors for $1.25 per pair) are preferable to the strapping method, as they require no after-care.

In the treatment of flat foot rigid plates are to be avoided. Fifteen years ago it was the general opinion that these were necessary. Today several of these surgeons have gone to the other extreme in opinion and teach that muscle exercises alone are needful. Personally I believe the happy mean between these extremes to be true—enough support to remove the strain from

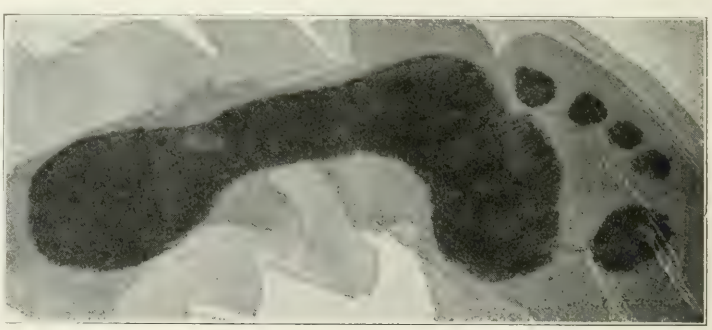


Fig. 5. A print of a foot having a normal arch

the leg muscles, and to allow these muscles by use to regain their tonus. This opinion is based on eight years' experience with the method.

This support should not be rigid, but should allow the arch to functionate naturally in an elastic manner. The support made by the Normal Shoe Company of Boston in conformity with my directions fills the indications of office treatment of flat foot satisfactorily. The support can be adjusted to the degree of flat foot present, and is worn from the first with comfort. The rigid supports universally sold are contraindicated physiologically, as they prevent the normal action of the arch, and they are bad from an anatomic point of view, as all of them have an arch on their outer border where the foot in nature is as flat as the proverbial pancake.

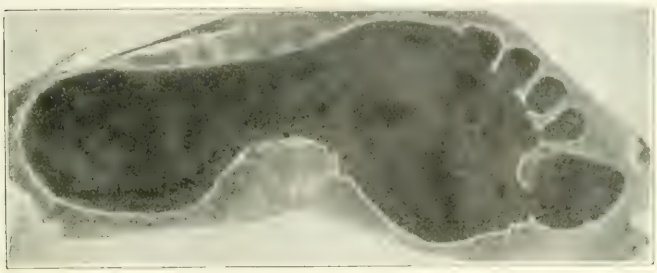


Fig. 6. Showing a moderate degree of flattening of the arch

The practical points of this paper may be summed up as follows:

1. Feet ailments are very common and will continue while style governs shoe shapes.

2. Flat foot, a very common ailment, is easily diagnosed in its different degrees by means of the foot-print.

3. Flat foot frequently arises from a period of decubitus, and it can absolutely be prevented by the means above described.

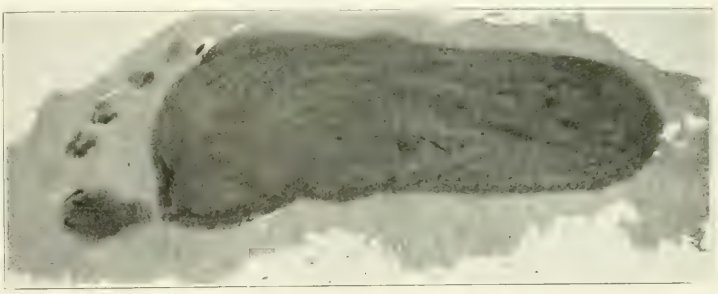


Fig. 7. A typical case of flat foot

4. Flat foot is easily and scientifically treated by the method above described.

ALL good team work arouses my enthusiasm. Foot-ball, part singing, machine politics, even house breaking are admirable so far as team play is manifest in them. But of all the forms of medical team play to which the spirit of our times is leading us, none seems to me so fruitful, so full of efficiency and of promise, as that in which doctor and patient get together against their common enemy—disease.—Dr. Richard C. Cabot.

The Early Recognition of Ectopic Pregnancy

By W. A. NEWMAN DORLAND, A. M., M. D., Philadelphia
Professor of Obstetrics, University of Pennsylvania

EDITORIAL NOTE.—In this paper, which was read before the Wilmer Krusen Gynecological Society of Temple University, March 15, 1910, Professor Dorland shows us that ectopic gestation, which only a few years ago was considered exceedingly rare, is by no means uncommon. Every practitioner should be prepared to recognize it, and as early as possible. This article gives the help needed for its early and accurate diagnosis.

THE phenomenal growth of our profession in scientific attainment—a growth which in many directions has been revolutionary in its effects—may not be fully, or even vaguely, appreciated by him who takes merely a cursory view of events. When we hear of the inroads that have been made upon our cult by various "isms" and "pathies" with sonorous and awe-inspiring names, which draw after them large followings of superficial seekers after the strange and the new—the Athenians of our modern civilization—we are prone to wonder what will become of the profession we hold so dear, and to lament over its decadence and fall from popular favor.

We do wrongly when we argue so, for it has ever been thus in the history of medicine, from the days of Hippocrates to the present time. Nay, on the contrary, I venture to predict that this age in which our lot is cast will, in the fulness of time, be regarded as one of the most remarkable evolutionary epochs in the science of medicine. We are living in a transitional period, characterized by revolt from the old and rut-betrodden methods which have outlived the times and conditions that gave them birth, as also by adventure in new and untried fields, particularly of laboratory experimentation, much of which, it is true, has assumed an unwonted and an unmerited degree of importance.

But this should not cause us to fear. The swing of the pendulum will return and a happy and sound mean will be reached, which doubtless will, in the perspective of the years, be found to mark a notable advance in scientific acquisition. Just now our professional hypermetropia distorts the relative proportions of things. We are living too close to the flying wheels; our noses are pressed against the grindstone, so that a mere phantom alarms us and a mote becomes a beam which almost completely obscures our vision.

The New Knowledge of Recent Decades

Gentlemen, I will call upon your patron to vouch for the accuracy of my assertion when I state that he and I today (and we are young men yet, with our future before us) are daily practising soundly established surgical procedures which were never mentioned, or even dreamed of, when we sat upon the benches. The Rœntgen-rays, for instance, have transformed bone-surgery and neoplastic pathology and treatment since those days; appendicitis is a new term to us, unheard of when Pepper and Agnew and Da Costa and Gross spoke eloquently to their admiring students; and the topic which I have selected for a few minutes' deliberation upon tonight has so grown from a rare and almost impossible condition in those days that it has become one of the grave and exceedingly important surgical entities of today—a condition with which it has been my good fortune to have had an experience of more than ordinary interest, and concerning which I am now engaged in developing, at my leisure, a work of greater magnitude than has, I believe, as yet been attempted.

One of my distinguished teachers—the gifted and lamented R. A. F. Penrose—when lecturing upon ectopic pregnancy, pronounced it an extremely rare condition, a curiosity now and then met with in general

practice, but which none of us (a class of 150 men) would ever encounter. Nevertheless, the first abdominal section that I was called upon to perform was for a tubal abortion on the right side two years after a similar operation had been performed upon the opposite side by my friend and teacher, Professor B. F. Baer of this city. It was a case of that unusual occurrence, a repeated extrauterine fetation.

Today ectopic pregnancy ever looms before the abdominal surgeon as an imminent possibility and a condition of extreme gravity if not promptly recognized and removed. Your wife or mine runs a very fair chance of being one of the many victims of this accident of nature. It is proper, therefore, that we acquaint ourselves with its strikingly characteristic clinical features.

Ectopic Pregnancy Is Not Uncommon

I believe that the frequency of ectopic pregnancy is greater than is generally thought, and that many of the very early cases of so-called abortion are in reality tubal abortions into the uterine cavity instead of outward through the fimbriated extremity of the tube.

If, as one school of obstetricians thinks, the normal site of meeting of the ovum and the male element is the tube or the rupturing Graafian follicle, after which union the fecundated egg is impelled by the inwardly waving cilia into the nidus prepared for it by the developing endometrium, then one is justified in believing such an occurrence as tubal abortion of much greater frequency than it is generally thought to be.

I am not an adherent of this school. On the contrary, I regard the fundus uteri as the normal *rendezvous* for ovum and spermatozoid, and I believe that should the ardent admirer fail to meet his affinity at the predestined place, then, in the true chivalrous spirit of heraldic times, he ventures forth like the knights of old in quest of his fair one, and meets her in a straitened place. Then the trouble begins. His impetuosity has brought both him and her into difficulties that might have been avoided had he patiently abided at the ordained trysting-place. When we consider the narrow lumen of the oviduct, it does not seem reasonable to suppose that nature deliberately intended such a perilous journey for every normally impregnated ovum.

However this may be, it stands to reason that there is no possibility of recognizing clinically an internal or intrauterine tubal abortion, if I may so term it, and that all such favorable accidents must be included in what they clinically develop into: ordinary abortion.

The Frequency of Extrauterine Pregnancy

It is the large class of cases that become inextricably lodged in the tube at some point of its lumen from ampulla to uterine wall that go down on record as ectopic gestations. This is the condition that holds a certain relative proportion to normal intrauterine gestation, which proportion has been variously estimated in modern times as anywhere from 1 in 500 to 1 in 250 intrauterine pregnancies. The latter figure, I believe, represents more nearly the true proportion. At any rate, we now know that ectopic pregnancy is an occurrence of such frequency that its existence should be anticipated in all gynecologic and obstetric work, and its presence diagnosed before rupture of the gestational sac has occurred, in at least 90 percent of the cases. Such a statement as this would have been scouted when your patron and I were students in the medical colleges we attended.

However, the diagnosis of the condition, and especially of rupture of an extrauterine pregnancy, is now a very simple matter for the gynecologist, and should be just as easy for the general practitioner of medicine. Therefore, too much stress cannot be laid upon the recognition of the early symptoms of this serious abdominal condition, for it is only by the wide-spread propagation of such knowledge that thousands of valuable, or at least precious, lives may be saved to their families and the communities at large.

Right here permit me to say that I believe that the textbooks are largely responsible for the obscuration of the pathognomonic symptoms of ectopic pregnancy. In most cases they unduly emphasize and enlarge

upon the presence in these patients of the normal symptoms of pregnancy, and thereby divert the mind away from the essential features of the case.

Some Diagnostic Complications

A very perceptible percentage of these patients are unmarried and illegitimately pregnant women who come to their physician as single women, and who themselves, for the protection of their social status, intentionally direct the physicians' minds away from a suspicion of gestation. If the doctors be unduly impressed with the fact that normal gestational symptoms—menstrual cessation, morning sickness, vesical irritability—are inevitably predominant in ectopic cases, and if they be guileless, as they should not unduly be, how easy it becomes to ignore any possible gestational complications and to regard the condition as some less harmful and dangerous pelvic involvement!

Again, a very fair proportion of these cases occur in the first gestation, and often shortly after marriage, when the normal symptoms of pregnancy are naturally exaggerated, and the reflex neuroses are prone to be overprominent. How easy in these cases to regard any exacerbation of pain as a direct result of the excessive nervous irritability of the young woman, and to neglect a closer investigation until an acute collapse indicates the supervention of what might have been avoided by the more careful observer!

It is a safe rule in the clinical study of all gynecologic and obstetric cases to forget, for the time being, the normal, and to seek for the pathologic symptoms, both subjective and objective. A normal pregnancy in the vast majority of instances presents no marked pathologic symptoms, and those that are present are often suppressed by the natural modesty of the woman, so that they are hidden even for weeks from her nearest relatives and those most interested in her welfare.

Menstrual Suppression Does Not Always Occur

Remember, also, that not every case of ectopic pregnancy gives a history of menstrual suppression, but that in a very large number of cases the bleeding is delayed for a few days only (not long enough to arouse the suspicion of pregnancy) and then reappears in a more or less irregular form, freer today and less tomorrow, but always showing to a degree, and accompanied by other strongly suggestive symptoms, such as painful paroxysms localized to a side and abdominal region, the right or left ovarian.

If such a history is presented by a young woman recently married, the physician, knowing that normal pregnancy is not so characterized, should insist upon a pelvic exploration in order to throw more light upon the question. How much more positively should such an examination be insisted upon in an unmarried woman, in whom such symptoms indicate pathogenesis only, or in a woman long married who presents a history of a period of sterility more or less extended!

In other words, gentlemen, let me urge you not to look for the normal symptoms of pregnancy in these abnormal cases, and then graft upon these any pathologic manifestations that you may find, but to reverse this process. Are there present abnormal conditions? What are they and where are they localized? Then, having determined these, note if they are associated with any of the natural phenomena of the process of fetal development, and thereby simplify your diagnosis of ectopic gestation.

The Character of the Pelvic Tumor in These Cases

Of course, a gestation external to the normal fetal habitat will at once give rise to the most striking local objective manifestation: a pelvic tumor; a tumor which is distinctive in many ways. It is a bloody tumor, acutely inflamed and adherent to everything with which it comes in contact. The peritoneum of the vicinity and, in fact, of the entire lower abdominal cavity, shares in this increased vascularity, as do the tissues generally of the lower abdominal wall. So true is this that we, as abdominal surgeons, can almost diagnose an ectopic pregnancy as we incise the tissues beneath the skin, and when the peritoneum is reached, its angry and vascular condition is very typical.

Naturally this extreme vascularity accentuates the local inflammatory reaction, and consequently no tumor, not even excepting the mass of an acute pus-tube, is so exquisitely sensitive as is this gestational sac. A firmly fixed, cystic or semi-elastic and extremely sensitive mass, the seat of paroxysmal attacks of agonizing pain so severe as to induce collapse or a condition of semi-collapse with free perspiration, together with an irregular, sanguineous discharge from the uterus—these comprise a complexus of local symptoms that is peculiarly characteristic, a clinical picture that cannot be mistaken, and that, when once seen and comprehended, cannot be eradicated from the surgeon's mind.

Mistakes in Diagnosis Easily Made

When speaking thus dogmatically I am referring only to the well-trained abdominal surgeon, whose first instinct is diagnostic and then corrective. To the general family physician, who sees most of these cases first, and to whom the surgeon is indebted for his careful scrutiny (or the undertaker for his superficial investigation of the case), there are other conditions which more or less closely approximate this grave complication in its clinical features. An early abortion; an acute salpingitis or a fully developed pus-tube; an acute appendiceal attack—the so-called fulminating or *foudroyant* appendicitis; early placenta prævia; an ovarian tumor; and intestinal, renal, or hepatic colic—all these conditions have been confounded with ectopic gestation. But, I think, there should be no doubt as to the diagnosis in any of the above-named diseases. Almost invariably a cardinal symptom will differentiate or exclude a given pathologic state. This is just as true here as elsewhere.

In a series of 130 cases of extrauterine fetation investigated by Philander A. Harris, 90 percent were diagnosed as simple abortion, and 20 percent were curetted, while in but 20 percent was the diagnosis made before rupture occurred. I do not think I can give you a more tragic picture of professional inadequacy than this. We might allow for 5 or even 10 percent of incorrectness of diagnosis, but 80 percent! Surely this is inexcusable. Yet, the presence of but one salient feature—the exquisitely sensitive mass behind and to one side of the uterus—would have cleared the diagnostic field and excluded the simple abortion in each and every instance.

Pus-Tubes, Appendicitis and Other Causes of Confusion

As for acute pus-tube, the presence of chills and fever of an appreciable degree differs essentially from the almost apyretic course of ectopic gestation. I admit that an acute appendicitis with early collapse may, and often does, closely simulate ectopic gestation, but here again our main reliance must be placed upon the results of the pelvic exploration. The immovable, sensitive mass behind the uterus, which organ is displaced by the tumor from its normal site in the median line to the opposite side, will not be found in the appendiceal case, but is always present in the gestational complication.

The painless bleeding of a centrally implanted placenta prævia and the absence of the typical gestational mass should clearly distinguish this serious obstetric complication from a tubal or other misplaced pregnancy. An ovarian cyst or a tumor of the adnexa of any form would give a history of long duration and slow growth, unaccompanied by the excessive tenderness or by the acute paroxysms of pain which are so characteristic of the tubal pregnancy, and there would also not be noted any increase in the size of the uterus. Colic, whether intestinal or associated with kidney or liver disease, may be at once excluded by the absence of a characteristic pelvic mass.

You see, gentlemen, that I am mentioning only the salient point in the differential diagnosis of each of these conditions; but, it is the salient point which practically determines the question in every case, leaving to the further careful examination—which should always be made—only the confirmatory evidence which clenches the diagnosis. This is the fundamental principle in all diagnoses, but the tendency of most writers is to obscure the matter in any given pathologic condition

by overdevelopment of the possible complications. It is unfortunate that it is so.

I believe that there is room for a book termed, perhaps, "The Essentials of Diagnosis," which should for each and every condition in the practice of medicine and surgery give only the striking or salient symptom or complexus of symptoms, and then, in smaller type or in tabular form, the correlated conditions, with emphasis upon the main points of differentiation. It may be that one of you will in the future prepare such a work.

The Symptoms of Rupture in Ectopic Gestation

Sooner or later, and often very early—even as early as the fourth or fifth week—the inevitable result is reached, namely, rupture of the thinned-out sac. I do not know of any clinical picture more vivid and startling than that attendant upon rupture of an ectopic gestation.

A severe, agonizing attack of pain coming suddenly, without warning, at times in the dead of night; or—as in a case of interstitial pregnancy in my own experience, while the patient was ascending her front door-steps—attended by profound shock and almost instant collapse, with the characteristic clammy, marble-like skin, extreme pallor, rapid, running, thready and almost imperceptible pulse, and occasionally nausea and vomiting. Who does not know this picture which ranks with the angry, distorted and purplish visage of puerperal eclampsia as one of the most dreadful and distressing in clinical experience? And, yet, there are many practitioners of medicine who do not recognize this complexus of symptoms so indicative of internal hemorrhage, and who will even permit these patients to lie, without proper surgical intervention, for hours while they pump into the inanimate forms dangerous quantities of cardiac and respiratory stimulants until it is too late to save life.

When such a condition supervenes in any woman, the first thought should be: ruptured ectopic pregnancy. The bulging, boggy vaginal cul-de-sac and, when the hemorrhage has been excessive, dulness on abdominal palpation and even a tumorous formation clearly palpable through the abdominal wall, will suffice to establish the diagnosis of rupture of the sac with internal hemorrhage—which condition can be corrected only by immediate abdominal incision.

The Sensitiveness of the "Abdominal Brain"

In closing this brief essay, permit me to remind you of one additional and urgent reason for the early recognition of ectopic pregnancy. The socalled "abdominal brain," the solar plexus, about which we know so little, although its powerful influence upon the abdominal and pelvic viscera in health and disease is a well-recognized factor in surgical physiology and pathology, has not its peer in extraordinary sensitiveness to external interference.

Upon the slightest pretext, like the sensitive plant, this controlling center shuts down its motor currents and imposes a condition of paralysis upon the viscera which are dominated by its mysterious influence or that of its associated nerve-plexuses. A blow upon the abdomen; the absorption of a minute trace of self-engendered or extraneous poison; an abrasion, tear or rupture of a layer of a visceral wall; or also the presence of blood, serum, clot or other foreign body will suffice to interrupt the delicate currents, and at once a temporary intestinal paralysis supervenes.

This action, though beneficent at first in aiding in the localization of the disturbing cause, may speedily assume a menacing or even a sinister aspect. It is a simple matter for such a paralysis to advance beyond the temporary beneficial state and to become an incurable and rapidly fatal obstructive paralysis of the bowel, the socalled adynamic ileus.

In many of the cases of ectopic pregnancy only a slight hemorrhage may occur from the fimbriated extremity of the tube, producing not more than a handful of clots which lie in Douglas' cul-de-sac. There will be sufficient, however, to produce a condition of intestinal paralysis which will be noted at the time of operation, and which may be exceedingly difficult or even impossible to overcome.

Recently in a case of my own such a paralytic condition was noted at the time of operation, which was performed prior to rupture of the sac. The loops of intestine were flat, ribbon-like, angrily red and lifeless, and it was only by the most energetic action from the moment of operation, including the heroic use of croton oil and eserine, that the paralysis was overcome. As it was, there were five days of complete adynamic ileus, without fever or acceleration of the pulse-rate—in fact, with both of these factors subnormal—and with but slight distention, but with fecal vomiting, before a spontaneous movement of the bowels occurred, followed by a speedy recovery of the patient.

Gentlemen, I have had but one motive in bringing this paper before you tonight, namely, the desire to stamp indelibly upon your memories a comparatively common clinical picture, so that as soon as it presents itself to you in your future work you may, by promptness of action, relieve a serious condition and save a life. If I have succeeded in doing this I shall rest content, for a life saved is a victory won in a physician's career, and he can have no higher aim than this.

The Treatment of Chlorosis

With Special Reference to the Dietetic Factor

By A. L. BENEDICT, M. D., Buffalo, New York

THE typic case of chlorosis occurs in a female, within a few years either side of 20. This disorder is marked by a greenish yellow sallowness of the skin, and, on examining the blood, we find a moderate reduction of red cells (not often below three and a half million), and from 35 to 60 percent of the normal amount of hemoglobin. On the average, according to Cabot, there are four million reds, 40 percent of hemoglobin, and, consequently, a color index of one-half. In the stained specimen the red cells appear, as a whole, smaller than normal, they are lightly stained, and many appear as rings, on account of the normal biconcavity and relative lack of material to take the stain. While the whites may show either a relative excess or a deficiency, there is no characteristic abnormality; the red cells show only occasionally irregularities of stain or of contour, or nucleation. Thus we have no indications of an essential failure of red-cell formation, but rather of hemoglobin assimilation or, considering the pigmentation, an excessive destruction of hemoglobin.

However, in some cases it has seemed that the pigmentation really was hepatogenic, due to inflammation of the duodenum or bile-duct, in other words, that it was of the nature of a true obstructive jaundice of light degree. In such instances the propriety of using the term chlorosis comes into question.

As to the Definition of Chlorosis

There is a difference of opinion whether the term chlorosis should be applied, either in the case of males or of females after early adult life, even when the condition of the blood and the general symptomatology correspond to the ordinary conception. Of course, we may define a disease in any terms we choose, and if the age and sex are considered in the definition of chlorosis, Cabot is right in saying, "There is no such thing as chlorosis in boys, and if it occurs in a woman past thirty it is almost invariably a relapse or a recurrence."

The writer has elsewhere protested against the setting up of arbitrary symptom-complexes, especially when a group of conditions of necessarily rare coincidence and not clearly indicating a unit of pathologic lesions or of functional disturbances is designated as, say, "Smith's disease, as a monument to the first describer, and when various lesser lights seek a share of his fame by raking over hundreds of recorded cases to find one or two that conform to the requirements.

Chlorosis is not rare nor is it a commemorative disease, but, if we pause to think, it is of doubtful propriety to introduce the sex- and age-limits. Neither the blood picture, nor the pigmentation, nor the course, nor the pathology, are essentially different from those of the ordinary case of secondary anemia, although the combination of all the conditions, as accepted in the ordinary definition, is certainly rare both in males and fully matured females.

A tissue so essential to life as the blood can not, in the nature of things, have any definite connection with sex-organs. It would be just as rational to recognize feminine heart, lung, kidney and liver diseases. If chlorosis were definitely connected with excessive menstrual hemorrhage the case would be different, and if it can be shown that a characteristic disturbance of the female sex-organs produces an equally characteristic form of hemolysis, which does not occur in the male or in the female after full maturity, the writer will retract his objection to the recognition of chlorosis as a distinct type of enemia.

What Is Commonly Understood by the Term Chlorosis?

Retaining the term chlorosis simply as a matter of convenience, like puerperal fever, its treatment must be preceded by a careful inquiry into its nature. The simile of puerperal fever has been chosen purposely. Offhand, one would say that the latter condition is, necessarily, a disease of females, yet we know that it is simply a form of nonspecific sepsis in which the lacerated parturient canal acts as a predisposing cause exactly as an ordinary wound. The writer has even seen a gynecologist directly infected with an identical form of sepsis from a case of puerperal fever. Essentially, so far as pathogeny is concerned, this was a case of *puerperal fever in a male.*

A very significant point in determining the exact nature of chlorosis is that practically all observers agree that it is becoming more and more uncommon. As implied, chlorosis is not directly dependent on an excessive loss of blood by menstruation. If anything, suppression of the menses is more characteristic; but even this is not regular and, in any case, is in the nature of conservation and to be expected in various other forms of anemia.

Chlorosis Attended by Dyspepsia

Practically all writers agree that chlorosis is attended by dyspepsia, in the majority of cases. Now, while the word dyspepsia is too vague to have much stress laid on it, the frequent occurrence of any disturbance of digestion leads to the inquiry as to whether chlorosis is attended by dyspepsia or whether it would not be more correct to say that dyspepsia is attended by chlorosis. If this point were conceded, the further question would arise whether it would not be better to discard the term chlorosis and apply the more noncommittal designation anemia, meaning, of course, anemia of the low-color-index type.

Chlorotic patients often are plump, hence the trouble may be looked for rather in the assimilation of proteids and of hemoglobin than of carbohydrates and fats.

It has been conceded that mild degrees of jaundice in anemic young girls may not justify the term chlorosis, i. e., "green-sickness." Still, it is probable that, taking the profession as a whole, such cases are included with chlorosis in which the pigmentation is of hemolytic form. Moreover, so far as the blood picture and course are concerned, it is difficult to distinguish between the two.

A great many chlorotic girls are constipated and suffer from intestinal putrefaction, which not only leads to lowered nutrition directly, but, by absorption of toxic products, tends to anemia with a disproportionate destruction of hemoglobin, in either sex and at any age. This fact is of significance in justifying skepticism as to the specific nature of the hemolysis in chlorosis.

Within the last twenty years there has been a great reduction in the prevalence of chronic constipation, not only on account of more general hygienic education but because of the introduction of comfortable water-closets in place of the old-time backhouses, which almost always were noisome and either too hot or too cold, besides being

so exposed to view as to render the name "privy" a misnomer. To borrow a surgical term, the evacuation of the bowels has become a matter of election, instead of one of dire necessity. These changed conditions alone have greatly reduced the frequency of chronic constipation; moreover, strictly therapeutic management of constipation is much more efficient. The fact that constipation and chlorosis have decreased, *pari passu*, is another argument against the specific sexual nature of chlorosis.

Therapeutic Considerations

Turning to the direct consideration of therapeutics, it is an unfortunate fact that the average practician treats anemia in general as if it were a matter of starvation of iron. The man who simply gives his chlorotic patients iron almost always fails. Thanks to Tallqvist, it costs one dollar and a half or less for apparatus—a small fraction of a cent for each examination, and involves but five minutes' time and a degree of skill equal to the pricking of a pimple to find out whether our anemic patients are progressing or not. Blood counting is tedious, but the superficial examination of a stained smear is fairly easy and it gives a pretty good general idea of the cellular condition of the blood.

The demonstrated failure of iron in many cases of anemia at first led to the belief that its inorganic salts, at any rate, were not absorbed. However, animals on an absolutely iron-free diet, except for inorganic preparations, maintain or, after preliminary iron-starvation, recuperate hemoglobin; indeed, the absorption or nonabsorption of iron, mainly through the duodenum, can easily be demonstrated by staining with a sulphide or prussiate.

Thus the failure of iron-therapy in anemia is not due to the nonabsorption, physiologically, of inorganic preparations, but to the fact that anemia is not, usually, an iron-starvation, but either an iron-indigestion (malassimilation, absorptive failure), or due to excessive elimination.

Under ordinary conditions, as we know, the body requires only about 10 centigrams of iron a day, an amount contained in about 100 Grams of lean meat or even in an ordinary vegetarian ration. Now, while it is a good general rule to give rather more than the standard ration of a nutrient that is lacking, it is just as foolish to endeavor to overcome chlorosis by a large excess of iron, as it is to treat emaciation with quantities of codliver oil and other fats far beyond the digestive capacity of the bowel.

Theoretically, the nearer the iron ingested comes to the form of hemoglobin, the more readily will it be assimilated, and we may even hope to make good an excessive waste. Practically, provided a salt of iron is not irritating, any of the official preparations seem to be just as good as the fancy proprietary products.

Dialyzed iron, formerly in vogue, is, by definition, an iron compound that has not passed through an animal membrane. It is simply asinine to prefer this preparation on the assumption that it will, when swallowed, reverse its nature and pass through the human membrane better than ordinary salts. Even if given in the form of the reduced element, iron is dissolved by the hydrochloric (or, to some extent, by the vegetable acids in an achlorhydric stomach), whereupon, like the preparations already in the form of soluble salts, it combines with the proteids. "Beef, iron and wine" has a tonic sound, but the wine—which, by the way, usually is of the poorest quality—is seldom indicated; besides, if desired, the combination with a proteid may be effected outside the body, to some extent, by mixing soluble salts with expressed meat juice or egg-albumen. A fanciful name and a high price add nothing to the efficiency of proprietary preparations of this nature. As already implied, the writer has no preference for elaborate forms of iron and, aside from a regard for gastric irritation and staining of the teeth, has little choice among the various official ferruginous preparations.

As to dosage, it is wise to adhere to a moderate excess over the physiologic demand for making good the average elimination of the normal body, say 30 centigrams a day, of the iron-content of any particular salt or, as an approximate average, twice as much of

the salt itself. The exact dose of any salt may be calculated from its molecular weight.

The Butcher Shop Better Than the Laboratory

But the writer's preference are a variety of approximately 1 : 1000 dilutions of iron, in organic form, possessing also other nutrient value, that are fairly palatable, and, while much more expensive than formerly, are still cheap as compared with pharmaceutic products. These preparations are dispensed at butcher shops and are known to all of us as steak, roast, chops, and so forth. A pound (about 470 Grams) of lean meat contains 30 to 50 centigrams of iron—just about the maximum dose desired; even half a pound suffices.

A careful inquiry as to diet, with reference to actual approximate weight of the meat eaten, sometimes shows that there probably has been an actual iron starvation. If so, the indication to increase the meat ration is clear; if not, it is almost certain that nothing can be accomplished by artificial preparations of iron. Still, there is no objection to the reasonable use of medicinal forms of iron to supplement the intake when it is difficult to induce the patient to eat enough meat.

In the majority of cases, even if the meat ration has been small, other foods have probably prevented the occurrence of an actual iron starvation, or, at least, of an iron starvation of greater degree than that of other nutrients.

Importance of Regulation of Diet

Regulation of the diet, however, usually is in order, and, as the writer has so often insisted, the physician can not succeed by simply telling the patient to omit pie and candy or by giving general directions. The medical adviser must know how much the human body requires of proteids, fats and carbohydrates, what proportions of these are contained in ordinary foods, and he must make sure that, approximately, the needed ingedients are actually weighed or measured for the patient and consumed. All this implies serious study applied to foods, of just the same kind of mental application as is required of the student with regard to the active principles of drugs, to percentage-strength of galenicals, and memorizing doses.

It is very probable that we have connected the term chlorosis with sex, not so much because of abnormalities of the sexual organs, as because the patient presenting that symptom-complex is a girl. Just how much the peculiar cravings of girls and their liability to eat an excess of candy, to stimulate themselves with tea, coffee and chocolate, to forego plain foods and to eat at irregular times are due to physiologic, and how much to social conditions of girlhood, we need not now discuss. The point to be emphasized here is the prime importance of a wholesome diet.

Feeding of Iron Not the Only Imperative Factor

However, the mere getting enough iron and other nutrients inside the alimentary canal is merely a first step in the treatment of chlorosis. Only once in a while are we lucky enough to find a case of essential iron starvation that readily yields to treatment with iron, whether given in the form of meat or other combination.

Fortunately, chlorosis is rarely due to an essential failure of blood-formative power, although, like any other anemia to which the term "simple" is applied, its continuance may eventuate in a true pernicious, hemolytic anemia. Between these two extremes —the one easy because we need only to furnish iron, the other easy because it is practically impossible to accomplish anything of lasting value—we must think of failures of iron digestion, iron absorption, iron assimilation, and of the undue destruction of hemoglobin, i. e., hemolysis.

It is unfortunate that we know so very little of the exact physiology of the processes involved, nor can even be sure that the trouble, in any given case, is confined to a single one of these factors.

Iron and the Digestive Process

As to digestion, it is probable that the availability and successful employment of reduced iron, of the carbonate or the insoluble preparations generally, is practically

limited to cases with an abundance of hydrochloric acid. A normal gastric digestion seems, however, to be advantageous in the utilization of iron, aside from the matter of acidity, since with hyperchlorhydria and ulcer anemia is apt to exist. But in many cases of achylia gastrica the blood and, indeed, the general health are normal. Intestinal putrefaction with production of hydrogen sulphide quite directly tends to produce anemia by the precipitation of iron sulphide.

It was formerly advised to give inorganic preparations of iron in order to bind the sulphides in the intestines even if the former were not absorbed. But it seems more rational to combat the putrefaction by dietetic measures, such as limitation of meat and proteids generally for a time—in spite of the direct indication to supply food rich in iron—by feeding buttermilk, or by fasts and purgation, so as to allow the intestinal canal to become relatively sterile. Salacetol or aspirin, menthol, mercurials, animal charcoal, etc., have some value as intestinal antiseptics. The writer is inclined to regard the effect of arsenic in anemia as due rather to a local antiseptic effect than to any substitution for iron or other recondite influence on the metabolism.

To say, with equanimity, that chlorosis often is attended by dyspepsia, is on a par with stating that an unsuccessful army is marked by lack of discipline. Possibly it is a specialist's bias that makes the writer feel that many cases of chlorosis are nothing but ordinary anemia, secondary to digestive failure, but no one will question the propriety of diagnosing the exact form of dyspepsia in any given case and relieving it if possible.

Intestinal Catarrh Cause of Iron-Starvation

Failure of iron absorption is reasonably well shown to depend upon intestinal catarrh, especially of the duodenum, although the difficulty of obtaining positive evidence by necropsy in cases that are very slowly fatal, at worst, is obvious.

It is not established whether the fact that most of the iron is absorbed through the duodenum is due to some special histologic or functional peculiarity of this part of the bowel, or whether iron, being quickly prepared for absorption after or even before leaving the stomach, penetrates the first part of the bowel to which it comes.

All catarrhal conditions of the bowel should, at all events, be cared for, and, without entering into details, or ignoring the extreme importance of dietetic and general hygienic measures, the writer would mention, in passing, his method of treating such conditions by an internal "salve," after some such formula as the following:

Menthol ..... 3 parts
Bismuth subcarbonate (or other form)..... 15 parts
Purpetrol (a pure mineral oil)..... 450 parts

Directions: Take 15 Cc. three hours after each meal.

As to iron assimilation, which means the manufacture of hemoglobin, the writer must confess to an entire ignorance, both theoretically and practically, unless the general admonition to look after all vital processes, to insure exercise and fresh air (factors especially liable to be at fault in chlorotic girls) may be considered to bear particularly on this function. One fact, apparently purely theoretic, may ultimately, perhaps, prove to be of great importance, both in enabling us to gain a proper conception of anemias and in the way of practical therapeutics, namely, the essential anemias with marrow lesions seem to be quite independent of hemoglobin assimiliation, for, while in such cases the total hemoglobin usually is low, the individual red cell unusually is rich in it.

It is impossible always to distinguish between failure of the various processes involved in the upbuilding of hemoglobin and those involving hemolysis, yet, in chlorosis the pigmentation probably indicates the latter.

Physiologically, hemolysis is supposed to occur only in a small proportion of senile blood-cells, the iron-free hemoglobin appearing as bile-pigment, while the iron is conserved by the spleen and liver, to a large degree.

This opens up the broad question as to hepatogenic and hematogenic jaundice, the discussion of which here would occupy too much space. Accepting the ordinary view as to the distinction, it again raises the question as to whether there is a genuine difference between mild jaundice with anemia and socalled chlorosis, and, also, how far we may rely upon the existence of a general pigmentation without demonstrable bile-pigment in the urine to exclude catarrhal and other forms of obstructive jaundice.

In a practical, if not theoretic, sense, these questions must be solved to the best of our ability in every case of apparent chlorosis. Whether our conception of the classification of these conditions is correct or not is not so important as it is to determine between a duodenal or biliary catarrh and a hemolysis in any particular case.

Naturally, the cases encountered by the writer which correspond to the clinical definition of chlorosis, including the existence of hemolysis, are mainly due to intestinal toxemia, especially that form marked by indicanuria. The hemolytic action of entozoa, even the common tapeworm, must not be forgotten under certain conditions.

As stated, the demonstration of a specific hemolytic agent originating in the sexual organs would justify the conception of chlorosis as a distinct type of anemia, limited to the female. Such an agent must be sharply distinguished from the drain of menstrual hemorrhage or general depressions of health due to menstrual disorders of any kind. The diagnosis and treatment of sexual conditions of course deserves equal attention with those of other organs, and perhaps greater, but the writer is obviously unable to discuss them.

The Proper Functions and Duties of a State Board of Health

By E. STUVER, M. D., Fort Collins, Colorado

THE *function* of a state board of health should be: (1) To keep a complete record of births and deaths. (2) To stamp out existing contagious and infectious diseases. (3) To protect the life and health of the citizens of the state. (4) To assist school boards, municipal health officers, medical societies and other health agencies in correcting the physical defects and promoting normal, healthy development of the young. (5) To aid in removing obstacles in the way of scientific investigations and experiments the object of which is to find out the cause of disease or to relieve suffering and save human life.

The *duty* of a state board of health should be:

1. To keep a complete record of vital statistics. In connection with the recording of births the name, age, race, nationality, occupation, residence, physical condition and characteristics and predisposition or tendency to disease of the parents, together with the physical condition of the child should be carefully recorded. The pointing out of physical defects and tendencies to disease will serve as a danger-signal and may be of great service both to the individual and the state. A careful record of the cause of death, accompanied by an outline of the postmortem findings whenever possible would furnish information of very great value to physicians and the science of medicine as well as in the prevention of disease.

2. To establish a complete system of inspection for all such contagious and infectious diseases as smallpox, scarlet-fever, diphtheria, measles, whooping-cough and chicken-pox, which should all be quarantined until all danger of infecting others is past.

"But why shall we quarantine for such mild diseases as measles and whooping-cough?" some may ask? Simply because in children under two years of age the average death-rate from measles is 20 percent, or

1 in 5, of those attacked by this disease, while in some severe epidemics it reaches 30 and even as high as 50 percent. Further, among babies and young children whooping-cough is a very deadly disease and in severe forms may kill one-half of those attacked, while if they can be kept from taking it until they are four years old scarcely any will die. Cases of tuberculosis, typhoid fever and malaria should be very carefully managed. so that the disease-germs cannot be conveyed from one person to another.

Extremely careful investigations of recent years have proven that the germs of typhoid fever are often carried by flies, also that malaria is always conveyed from the sick to the well by certain species of mosquitoes. If the manure piles and other collections of filth in which flies breed were promptly removed there would be fewer flies and far less typhoid fever, while if people would get rid of old cans, buckets, barrels, pools and swamps of stagnant water there would be no mosquitoes and malaria would soon become a thing of the past.

Against the great "white plague", which causes the loss of thousands of lives and millions of dollars a year in every state of the union, the boards of health should wage a systematic and relentless warfare, and in every possible way it should be impressed upon the people that this deadly scourge is largely preventable and that by all working together in the right way it could to a large extent be stamped out.

This warfare against contagious and infectious diseases should be in the hands of thoroughly trained sanitarians or persons who have been specially prepared for the work. You might just as well put some ward politician at the head of a great engineering project or in control of a system of railroads and expect to get good results as to expect some unprepared doctor at the head of the health department to make good. Our lives and our health are the most precious and highly valued things we possess and their care should be placed in the hands of those thoroughly competent to protect them.

Every city, town, village and county should have competent health officers selected for their positions on account of their peculiar fitness for the work and the good they can do for the community rather than as a reward for services they may have rendered to some political party, ring or combination. Then they should be paid sufficiently large salaries and be required to devote their whole time to this work.

4. Most people want to be strong, healthy and happy, and it should be the duty of the state board of health to take the lead in organizing a systematic campaign to secure these results. The board should cooperate with local and county health officers and medical societies to spread the information necessary to accomplish this work. If short, clear, concise articles on hygiene and preventive medicine were sent out into every school district in the state and given to the school children to be carried to their parents; if the "little red school house" were used for lectures by health officers or persons selected by the county medical societies, the people who most need this sort of instruction would soon have a clearer idea of the causes of diseases and the best means of avoiding them, and would, I believe, gladly help to stamp them out.

5. The state board of health should formulate plans for and assist school boards and teachers in detecting and preventing disease and defects among school children. According to Prof. Frank Allport of Chicago eight million school children in the United States suffer from some eye defect and about eight million from some ear, nose or throat defect, or in other words, sixteen million children, or 80 percent of the entire public-school population, suffer from some eye, ear, nose or throat defect which more or less retards their school progress, while a vast majority of these diseases could be cured or relieved if detected and placed under proper medical supervision. Children of this kind are at a great disadvantage in school, and because they cannot see or hear properly or their brains are dulled by poisoned blood, they cannot take advantage of the instruction presented; they soon fall

behind, become discouraged, drop out of school, and help to recruit the vast army of ignorant and incompetent people who are becoming a great expense and menace to our country.

6. As advances in hygiene, the prevention and even the cure of diseases to a large extent depends on knowing the agents that cause them, the state board of health should aid such discoveries in every possible way. It should strive to secure the establishment of thoroughly equipped laboratories where trained experts well paid by the state can devote their whole time investigating the causes of disease and conserving and protecting the health of all the people of the community.

Since such a state of affairs can only be brought about by a popular appreciation of and demand for such work, I believe it is the duty of the state board of health to inaugurate and vigorously wage a campaign of education which will demonstrate to the people the great advantages that have already been derived from scientific experimental investigations on animals; how through this means smallpox has been robbed of its terrors, diphtheria rendered a comparatively mild disease and the lives of fifty thousand children a year are being saved and untold suffering prevented by antitoxin; how the ghastly specter of the dread cerebrospinal meningitis is receding into the dim and horror-haunted past; how the great white plague is being vanquished by the knowledge derived from animal experimentation; how, in short, nearly all our knowledge as to the causes of diseases and much that we know about their diagnosis and treatment have been the direct result of such experiments.

When the people once know the truth about these matters and understand that their health, strength and happiness as well as the lives of their most cherished earthly possessions—their children—are protected and saved by investigations that discover the causes of diseases and methods for their cure, we shall soon have appropriations of money to save human lives as we now have for saving the lives of our hogs, sheep, cattle, horses and other domestic animals.

Scutellaria in the Treatment of the Morphine-Habit

With the Story of Some Personal Experience

By H. H. BROWN, M. D., Coshocton, Ohio

THE addiction to morphine is one of the worst habits to which mortal man becomes subject. The habitual consumption of opium and its alkaloids impairs the blood, breaks down the nerves, destroys the digestive powers; thus causing constipation, loss of appetite, derangement of the kidneys, and in fact it influences unfavorably all the organs of the human body. The mind is one of the first faculties to give way, although at times we may find a man ordinarily of only medium ability who under the influence of the drug will show great brightness, and, knowing this, his friends often want him to use it when he has any brain-work to do. Many years ago I knew a minister of the gospel who always took a dose of morphine before he went to preach, and he was a fine speaker when under its influence but incapable of anything when he had no "dope."

Opium seems to be a stimulant to everyone until he becomes habituated to it, although it does act quite differently in different persons. Some become very sleepy under quite small doses, while others require much larger ones, and yet still others it seems to brace up so that they can stay awake for many hours longer than without it. After the person has become enslaved

to the pernicious effects of opium, the bowels become constipated and no action occurs unless brought about by drugs of some kind. On the other hand, a very severe diarrhea may appear, so severe that it is positively needful to control the action with drugs. In my practice of medicine for the last fifty-one years some of the worst cases of diarrhea that I have had to treat were those of opium-cases. If I find those diarrheas I begin by giving teaspoonful doses of castor oil every two hours for a day or two, and pulsatilla to quiet the nerves. Then I prescribe scutellaria, 10 to 20 drops of the fresh-herb tincture, every two or three hours, keeping that up day and night as nearly as practicable, and drop 1-4 grain of the accustomed morphine every day. If I find that too much I skip a day now and then so as to keep the patient's strength in good shape.

Skullcap for Morphinism

A few years ago (in 1903 or 1904) I had to treat a man who was forty-eight or forty-nine years old. He had formed the habit some twenty years before that, while helping in a drugstore, at first taking the drug for headache, every two or three weeks, then oftener, until it became a habit. When he consulted me he was taking 25 grains hypodermically daily and had got so that this amount began to prove insufficient to keep him up.

I began treatment by giving 15 drops of the tincture of scutellaria from the green herb, prepared by myself, using pound for pound. This drug acts on the brain and all the nerve-centers, giving tone and steadying the nerves; it helps digestion and produces a steady appetite, doing away, in fact, with the opiate, inasmuch as it takes the place of the morphine, but leaving the patient bright and strong instead of in a depressed condition.

The man I am speaking of is a carpenter by trade. He worked every day while under treatment, did not lose a day during all the time he was taking the medicine and gained fifteen pounds in weight. We used nothing in his case but the skullcap, although at first I gave him the tincture of pulsatilla to keep up his nerves in order to inspire faith.

Pulsatilla Gives Tone to the Nervous System

Pulsatilla causes one to feel that he is perfectly safe from all harm; this being one of its best qualities. If you have a patient who fears to do a thing, give pulsatilla, and you will get good results. I have treated many cases of the opium- and cocaine-habits as well as alcoholism, and I always give pulsatilla when the patient becomes nervous and despondent; it is sure to brighten him up and cause him to improve fast.

I really do not know how many cases of the opium-habit I have handled, but never have failed.

The Merits and Demerits of Opium

Morphine (as well as other constituents of opium) possesses many good properties, but also many bad ones. It is like all the other great, good drugs: it relieves much suffering. I have studied it in its fulness from the pretty white poppy flower until it comes out in all its different forms. Several years ago I visited the poppy farms in lower California, and I must say that it makes the finest flower garden I ever saw. I do not know how large the largest field was, but it covered hundreds of acres. It was white as snow. I stopped and thought what an amount of anguish this vista of gorgeous beauty might bring, and then, again, I sought to imagine what a blessing to man it would prove and how much pain it would allay. I have been treating the different drug- and liquor-habits for years, and when these things come to one as we go along we must think of our life's work. I have tried all of the nerve-toning remedies and find many good ones among them.

My Line of Treatment

Sometimes we need to change our favorite medicine not only in the cure of the opium-habit but in even the least disease we have to treat. The circulation may be deranged, so may be the blood, also the digestion. All these things must be attended to and the system kept in good order. I then try to find how long the patients have used the

drug and in what shape, how fast they have increased the dose and what was its immediate effect. Then we are ready to give our drugs. Mine is, as said, pulsatilla first, then comes in the skullcap to effect the cure. The pulsatilla comes in correctly to quiet the nerves, but we must use the skullcap in all cases to eliminate the poison from the general system.

The Virtues of Scutellaria

I have found, in treating cases for many years, that there is not another drug in the materia medica that will come in any way near curing our patients as well as does our pretty little blue-flowered skullcap. It gives tone and strength to one and all, either young or old, male or female. It is always there and ready to build up all the weak points. It seems to have the power to meet each symptom as it comes up just the same as the opium has done. It causes the patient to feel easy and have no pain, and it gives strength; it causes a restful condition so that the patient can go to sleep, giving a natural feeling of calm more than any other drug, even morphine itself. Where the appetite has failed, which it does in almost every case, skullcap will build it up, producing a desire for food and aiding digestion, thus giving strength, keeping the blood rich and full of red corpuscles, and in that way aiding the body to overcome the poisonous effects of the opium, the cure of our patients following naturally.

Scutellaria is the best and most powerful tonic we possess. I feel that I know, as I have employed it for more than fifty years, having in some years dispensed more than fifty pints of the tincture. Even now, when trying to quit work, I have used up, in the last year, about four gallons of skullcap tincture. It is a great medicine for the old to keep up strength.

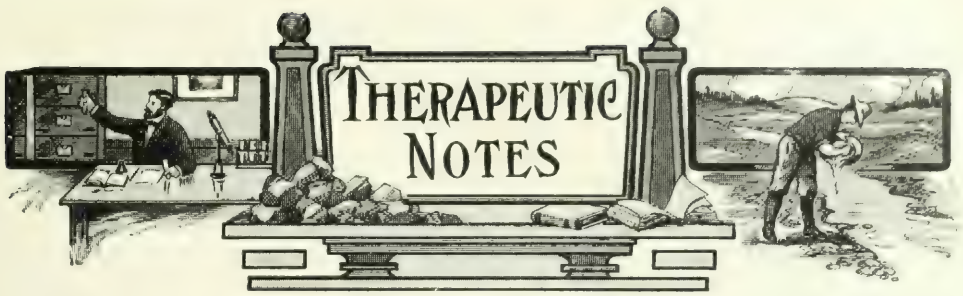
Under the withdrawal plan some patients get well faster than others, and this is because they do just as they are told, while the others pretend they do but are disobeying instructions. In my years of the practice of medicine I have seen many men, and they were of as many minds. You must watch them all, and watch them all the time, for the opium-fiend is the most tricky of all men. Still, they expect you to cure them. You can't trust one of them at any time. Watch in your next case and see if I have not told the truth.

A Case From Practice

Writing this brings to my mind a case of morphine-habit, a lady fifty years of age. She had taken the drug for nearly fifteen years. She was afflicted with hysteria. The woman thought that her jaws were stiff and she would not eat, even mashed potatoes, saying she could not chew them fine enough to swallow them. She had lived on soups of various kinds for the last three years. She would not try to masticate anything, no matter how soft. I talked to the lady and made her believe that I could give her a wash that would harden her gums and teeth. I gave her a wash of potassium chlorate and hydrastis, employing suggestion more than medicine. I gave her only one drop of tincture of skullcap every three hours because she was afraid of medicine. She had heard of my many cures, and while it is hard to believe, those one-drop doses were all she needed, together with the mental influence. But the suggestion accomplished the cure in her case.

It is now more than twelve years ago, and the woman has never taken a single dose of morphine since. Now, that is a cure to think of for mind-healing. The mind works wonders for all of us and in wondrous ways.

As you read these lines, be you who you may, cull out the good, if there is good in it, and drop the chaff. That has been my plan through a long life, and yet I have garnered but very little golden grain.



VERATRINE IN CHOLERA NOSTRAS

Schultz has found veratrine very useful in cholera nostras, when the intestine was not paralyzed and the general enfeeblement had not progressed too far. The tissues must still be able to perform their functions, and the circulatory activity must be sufficient. Every quarter hour, half hour or hour give a milligram of veratrine and half as much strychnine, until the symptoms are sedated.

DIURETIC ACTION OF CALOMEL

According to *Therapeutic Medicine* for April, 1910, the positive diuretic action of calomel was announced by Jendrassik in 1886. He noticed this action accidentally in a case of dropsy in a syphilitic patient and then tried it in cases of dropsy in non-syphilitic patients. This effect is positive and marked in cardiac dropsy, but is of little value in other forms.

MASSOLIN IN THE TREATMENT OF HAY-FEVER

Dr. George F. Leitner (*American Medicine*, May, 1910) has tried the treatment of hay-fever with massolin, a lactic-acid germ suspension (suggested by Curtis in *Merck's Archives* for January, 1909), in a number of instances, and found that in those cases in which there were distinct pathologic conditions in the nasal cavities, such as hypertrophic rhinitis, nasal spurs, polyps and sinus troubles, the use of the culture of the bacillus of Massol proved almost a specific. Some of the cases were relieved immediately, while others were greatly benefited. In those cases where the underlying cause was undoubtedly a neurosis there was not the slightest evidence of any benefit.

As to the method: The nasal tract should be washed out with warm normal salt solution, cleansing it thoroughly, and then by means of a spray, swab or cannula massolin liberally applied to the involved mucosa, repeating the application two or three times a day till the symptoms subside.

HIRUDIN (LEECH EXTRACT) IN THE TREATMENT OF ECLAMPSIA

Engelman and Stade (*Muench. Med. Woch.*, 1909, No. 43) have experimented with hirudin, which is an extract of leech. In two eventually fatal cases, after the infusion of 0.3 cubic centimeters of hirudin in 500 cubic centimeters of saline solution, a marked success was noted in that the convulsions hitherto following each other in rapid succession visibly diminished and ceased. In a third case the attacks also ceased after the infusion, and consciousness was regained after thirty hours.

The practical employment of leech extract is not yet sufficiently established, but it promises fair to be successful.

PRECAUTIONS IN THE USE OF FIBROLYSIN

Hayn (*Muench. Med. Woch.*, 1910, No. 7) says that the application of thiosinamin by hypodermic injections must be guarded if the slightest subjective disturbances or fever occur without any apparent cause. In order to avoid conditions similar to intoxication, one should then repeat the injection

not, however, in the usual intervals of two days, but wait longer in order to avoid as much as possible functional accumulation.

"TOXIC ATOXYL"

Under the above title *The Therapeutic Gazette* has called attention to some of the dangers of the newer arsenical preparations, notably atoxyl and other arylarsenates. In a recent number of the same journal several letters appearing in *The British Medical Journal* are quoted in substantiation. It now seems unquestionable that these preparations, while possessing in a marked degree the therapeutic advantages of arsenic, also have their toxicity. It is undoubtedly true that they sometimes produce optic atrophy. Heard and Lane both report cases in which impairment of vision followed the use of one of these preparations. Wray says that they should not be given in full doses to patients who have renal disease with deficient elimination, arterial degeneration or neuritis. They should be given cautiously to persons beyond middle life. However, considering the wonderful effects sometimes following their use it would be unpardonable from a scientific standpoint to throw them aside.

NEW FACTS ABOUT GALLSTONES

According to Upcott (*Practitioner*, March, 1909) pure cholesterin gallstones may be formed without infection or inflammation of the gall-bladder, through mere stasis of the bile. On the other hand, calcium is always found in the stones developing when the gall-bladder is inflamed, which is explained by the presence of the numerous mucous glands found in the inflamed bladder but absent in the normal organ. Upcott notes the tendency, on the part of English and American surgeons, to operate on all these cases as soon as a diagnosis is made. German surgeons, on the contrary, as a rule do not operate unless the gallstone-carrier is an actual sufferer. The author says that in uncomplicated cases the symptoms of stone generally are referred to the stomach, where it causes varying degrees of discomfort.

It has been our own experience that a large percentage of these gallstone operations are unnecessary; indeed, through faithful administration of sodium succinate, for a considerable period of time, practically every case will be clinically cured. We agree with Kehr, quoted by Upcott, that the majority of gallstone-cases present no indication for operation. The succinate of course does not dissolve preformed stones; it probably benefits through its favorable action upon the mucous membrane of the bile-passages or upon the secretion itself.

DOSAGE OF THYMOL IN HOOKWORM DISEASE

From time to time we have had inquiries as to the proper remedies to use in hookworm disease, and in what doses to use them, and how. Thymol is now generally regarded as well-nigh specific. The doses recommended by H. F. Harris (*Jour. Amer. Med. Asso.*, Feb. 5, 1910) are as follows: Up to five years, from 7 to 10 grains; from five to ten years, from 10 to 20 grains; from ten to fifteen years, from 20 to 40 grains; fifteen years and over, 40 to 60 grains. In advanced age the quantity should be somewhat less than during middle life.

Before giving the thymol the bowels should be thoroughly cleaned out with bedtime calomel, followed in the morning by a full dose of saline laxative. After the bowels have acted thoroughly give the thymol, in two doses, one hour apart. Then let the patient stay in bed, lying on the right side to facilitate the passage of the thymol through the stomach. No breakfast or dinner, though coffee may be given once or twice during the day. At four or five o'clock give another dose of saline laxative. Under no circumstances should the patient be given castor oil (or any other oil) while the thymol treatment is being taken, since fats dissolve the thymol, facilitate its absorption, and render thymol poisoning possible.

In our opinion, this treatment should be followed by the daily morning dose of a

laxative saline with sulphocarbolates several times daily to insure complete disinfection of the intestinal tract. After two weeks examine the stools for hookworm and if present repeat treatment.

TREATMENT OF TETANUS

Following is the treatment recommended by the Chicago Department of Health for Fourth-of-July wounds:

1. Inject subcutaneously 1500 units of antitetanic serum, and continue the injections if indications of possible tetanus arise.
2. Freely incise every wound.
3. Carefully and thoroughly remove from the wound every particle of foreign matter.
4. Cauterize the wound thoroughly with a 25-percent solution of phenol (carbolic acid) in glycerin or alcohol.
5. Apply a loose, wet boric-acid pack.
6. In no case should the wound be closed. The dressing and packing should be removed every day and fresh dressings applied.

CHROMIUM SULPHATE IN NEURASTHENIA

Dr. R. J. Boynton gives an exceedingly interesting report, in *The Medical Era*, on his experience with chromium sulphate, three cases of neurasthenia being instanced.

The first case described clearly was one of sexual neurasthenia, possibly secondary to sexual perversion, occurring in an unmarried woman of 35, who complained of aversion to society, and also of feeling agitated, especially in the presence of the opposite sex. The patient was greatly depressed and morbid. The usual nerve sedatives and general tonics had produced no relief. She was given chromium sulphate in 4-grain tablets four times a day, gradually increasing to eight tablets a day. There was improvement from the first, and now, three months after beginning treatment, she claims to be well.

The second case was that of a male, aged 38, single. This patient had suffered from neurasthenia of a melancholic type for a long time, which had resisted treatment. He was placed on the glycerophosphates and strychnine, and also was given 16 grains a day of chromium sulphate, this dosage being gradually increased to double. From the first week there was improvement, especially as regards his mental condition.

The third case occurred in a man of 56 and presented the usual symptoms of amyotrophic lateral sclerosis fairly well advanced. Mental condition cloudy; no inclination to arise from bed; great difficulty in walking. He was placed on chromium sulphate, 16 grains daily. Much to Dr. Boynton's surprise as well as that of the family the patient began to improve, the mental condition clearing up and strength returning. Even if the improvement should prove only temporary it is none the less welcome.

Dr. Boynton says that the chromium sulphate seems to work specially well in the depressive states—not so well in the optimistic type of neuroses. He thinks the remedy one of extreme value, and that it should receive pharmacopeial recognition.

ACETYLSALICYLIC ACID IN CHOREA

During the last three or four years Allan (*Am. Jour. Med. Sciences*, Feb., 1910) has relied upon acetylsalicylic acid in the treatment of chorea and has come to regard it as the remedy of greatest value in this disease. He uses the drug in practically all of his cases, whether there is a history of rheumatism or not.

TREATMENT OF ECLAMPSIA

W. J. Robinson says editorially (*Therapeutic Medicine*, June, 1910) that the premonitory symptoms, which are those of an intoxication, should be treated by rest in bed, warm baths, colonic irrigation, milk diet (resorting to rectal feeding if there is pernicious vomiting), free purgation with calomel and castor oil, strophanthus if the pulse is feeble, and nitroglycerin if tension is high.

Convulsions in thin, anemic women with poor pulse tension should be treated with

nitroglycerin and morphine, chloroform being used by inhalation; large women with high tension should be bled or given veratrum viride. Dr. Robinson rightly states that many practical physicians get equally good results from veratrine and prefer to use it, instead of the veratrum viride itself. Reduce the pulse to 60 per minute. Unload the bowels, for which croton oil may serve the purpose. Many authorities recommend prompt emptying of the uterus.

CHIMAPHILA UMBELLATA IN DIABETES

Pipsissewa [German, *harnkraut*, i. e., "urine-herb"] which formerly was used as a diuretic is now being recommended in America in diabetes mellitus, which is said to be cured by it. This action is claimed to be due to the arbutin and chimaphilin contained in the herb.—*Pharmaz. Zentralh.*, 1910, p. 353.

LOBELIN AND TOBACCO SMOKERS

Ch. W. Edmunds (*Journal of Pharmacology and Experimental Therapeutics*, June, 1909) has found that in dogs a tolerance to nicotine can readily be established by the administration of large doses of the drug, and that at the same time there develops a tolerance to lobelin. From this it would appear that to persons who habitually use tobacco lobelin, if exhibited, must be given in larger doses than ordinarily in order to produce effects.

PREVENTION OF OPHTHALMIA NEONATORUM

Von Herff, according to a note in the *Pharmazeutische Zentralhalle* (June 9, 1910, page 502), recommends sophol, or formonucleinate of silver, in 5-percent solution, for instillations for the purpose of preventing blenorrhea of the eyes in newborn babies. The solutions must be freshly prepared, using with cold water.

Recent personal experiences lead us to conclude that nuclein solution would prove highly effective for the same purpose, which would be preferable because more easily secured. We would suggest for the purpose a little stronger solution, say one of 10 percent, which can readily be prepared by adding to one drop of the nuclein solution nine of boiled water. It goes without saying that the pipette should be boiled before using.

PRESCRIPTION FOR ASTHMA AND EMPHYSEMA

Dr. Pigeaud (*La Dosimetrie*, Jan., 1910, p. 10) advises the following combination for the relief of asthma:

Strychnine arsenate	gr. 1-134
Hyoscyamine	gr. 1-250
Lobelin	gr. 1-134

This combination is useful in all dyspneic conditions, in catarrhal and in cardiac asthma, in pulmonary emphysema, and in kindred conditions. The author also considers the hydroferrocyanate of quinine in granules of 1-6 grain each, of value, seven or eight granules to be given during the day.

ACIDIFIED MILK FOR PREVENTING GASTROENTERITIS IN INFANTS

Dr. Jules M. Brady discusses the value of buttermilk and of acidified milk in pediatric practice, in *The Archives of Pediatrics* for June, 1910. For several years he has used acidified milk very extensively at St. Ann's Infant Asylum (St. Louis, Mo.) where about four hundred infants have received this food.

In 1906 and 1907 the various methods of feeding approved by the leading pediatricians of the country were put into use. Percentage feeding, split proteids obtained by using mixtures of cream and whey, milk and cereal combinations, low fat and relatively high proteids, mixtures obtained by using skim-milk, all in turn received a trial. Infants would gain up to a certain point and then hospitalism would manifest itself by green stools and diarrhea. In the cold months it was possible to exclude infection as the cause of the trouble, and the usual explanation was deficient digestive power, to which

were added fermentative changes due to the depressing effects of the surroundings.

In the summers of 1906 and 1907 there occurred epidemics of gastroenteric intoxication. They began in the latter part of July and continued up to the cool weather of September. For this the milk supply was blamed and the effects of the extreme heat. In the spring of 1908 the acidified milk was well under way; many of the infants had passed through the first two months and had been transferred to modified milk. To quote:

"We were dreading the effects of the excessive heat of oncoming summer. In July, about the time we expected our cases of milk poisoning, our babies were put back on acidified milk diluted with equal parts of barley water. These infants ranged in ages from two months to sixteen months. The experiment was a complete success. We went through the summer without an epidemic, and this past summer, which has been as hot as St. Louis has ever experienced, we had the same result.

"As a prophylactic in diarrhea the usual recommendations in days of excessive heat are less fat in the prescription, more water, and a diminution in the amount of milk for twenty-four hours. Also some form of sterilization of the milk. I have never seen mention of acidified milk in this connection and believe the recommendation of its use as a preventive of gastroenteric intoxication is something new.

"In hot weather our milk is first boiled before being inoculated. In preparing the acidified milk, the fresh milk is inoculated with the lactic-acid bacillus and then allowed to ripen for twenty-four hours by standing in a warm room; it is diluted with barley water to the desired strength, and in order to raise the caloric value to the needs of the infant a tablespoonful of cane-sugar is added to the quart of the mixture. For young infants one part acidified milk, two parts barley water, a tablespoonful of cane-sugar to the quart of the mixture was ordered. Older infants received one-half and two-thirds acidified milk with barley water; malt-sugar has also been used in place of the cane-sugar when the gain in weight was not satisfactory.

"Where there was an intolerance of fat, skim-milk was used. A failure to gain in weight, with good digestion, was met by the use of top milk. From the first our results were striking; young infants two days old received this seemingly irrational food. Our infants throve on this food, and we had many more successes than we had with the split proteids. I can remember the time when one-half the babies in a ward would have green stools; now green stools are seldom seen."

THE TREATMENT OF STRANGULATED HERNIA

Van Assen of Amsterdam has published a report of his experience in one hundred cases of strangulated hernia, in the *Beitraege zur Klinischen Chirurgie* (Bd. 65., Hft. 2), an abstract of which appears in *The Therapeutic Gazette* for June. The author concludes that every strangulated hernia should be operated upon as soon as possible, without effort at reduction by taxis, because even in the early hours of strangulation taxis is dangerous, whereas the results of operation are almost always ideal. In active syphilis or infection of the field of operation, however, if there is no special contraindication, taxis should be tried before resort is had to operation. In small children, if there is no general restlessness, an attempt should be made to bring about reduction by elevation of the pelvis. Strangulated hernia should, as a rule, be operated upon under local anesthesia.

THE TREATMENT OF GOITER

Dr. Henry Snow (*Journal of Advanced Therapeutics*, June, 1910) reports several cases of goiter which he treated successfully with iodide of mercury, used locally by the patient in the form of an ointment. The formula was as follows:

Mercury biniodide.....grs. 1 1-2
Lard .....oz. 1

Triturate the mercury thoroughly with 15 grains of sugar of milk; then add the lard.

Label; Apply night and morning, rubbing in thoroughly.

In one case this was all that was used to produce a permanent cure, but the author would so use it only in very light cases. He believes that it stops or at least retards the growth of the goiter.

In some cases the current from the Oudan resonator, using a vacuum-electrode, was used in addition, supposedly driving in the iodine by cataphoresis or, perhaps, by anodal pressure of the high potential current. This has seemed the most satisfactory procedure, and the steady diminution of the goiter from week to week was most gratifying. Vibration, which was also employed, seemed to be of secondary value, but was used as a preliminary treatment, because it appeared to soften the tumor and put it in the best condition to be influenced by the electricity.

THE COLON-TUBE AND COLON-FLUSHING

Dr. J. R. Etter, in a contribution to *The Medical Summary* for May, 1910, claims that the colon-tube can be passed beyond the sigmoid flexure, and in fact can be passed into the transverse colon. He has passed the tube numbers of times as much as twenty inches, and then in order to be sure that it was not doubled back on itself, passed a soft copper wire into the tube while in position, so that he knew it entered the length of the tube.

Dr. Etter strongly advocates the use of the colon-tube in many conditions as an excellent means, not only of cleaning out the colon, but of stimulating the peristaltic action of the small intestine, so that indirectly it is a good remedial factor in many forms of indigestion.

The assertion, which has been made frequently of late, that it is impossible to pass the colon-tube beyond the sigmoid flexure, may have an excellent foundation in the anatomical relations of the lower bowel, and, yet, we may add to the foregoing that many a time we ourselves have felt certain beyond the possibility of a doubt that we had succeeded in passing the tube higher than the sigmoid. We recall instances of fecal impaction in the transverse colon and in the splenic portion of the colon in which we succeeded in throwing considerable amounts of water into the descending colon which was clearly ballooned out, and we remember even to have felt the colon-tube through the abdominal wall. We may have been mistaken, in fact we must have been, if Professor XYZ says so, but somehow we rather think, like Dr. Etter, that we did the trick, and that it can be done. No doubt, many times and oft when the doctor or nurse think the tube is in the colon, it might be felt snugly coiled in the rectum; but equally, no doubt, many times and oft the difficult corner of the sigmoid has been safely passed.

We find our position supported by Arthur F. Hertz, of Guy's Hospital, who, in his recent work on "Constipation" (Oxford University Press, 1909), for instance on page 1, says that "recent observations have shown that fluids introduced through the rectum reach the cecum without difficulty." Also, on page 8, he writes: "By means of the x-ray I have observed a pint of a bismuth emulsion, introduced by rectum at a constant pressure of three feet of water, reach the cecum and render the whole colon visible." Thus, even if the colon-tube could not be passed, as asserted, it is certainly possible to throw considerable amounts of fluid into the colon, which, after all, is the important point.

Whatever may be the possibilities and actualities, there is absolutely no question about the beneficent action of what we will continue for the present to call colonic flushing in constipation, fecal retention, and in those numerous pathologic conditions which are improved by the introduction into the rectum of large amounts of water and by the cleaning out of the lower bowel.

VOMITING IN PREGNANCY

Vomiting of pregnancy frequently is easily controlled by administering one minim of tincture of iodine in an ounce of water, repeated every two hours.—*American Medicine*, April, 1910.

The Need of Studying Senility

II

AND this leads us to the important question of prognosis generally. It is not the place here to take up all the reasons which contend in favor of the necessity for the physician to know how to form an intelligent prognosis, but apart from the peace of mind which a just appreciation of what is to be expected gives to the attending physician; aside from the ill-timed intermeddlings which tire the patient and throw his physician in despair, I advise you not to forget the thought which one of my most honored teachers was wont to repeat to us. In a familiar and slightly skeptical form he concealed a grand truth, the result of long experience: "Remember," Prof. Girard used to say to us, "that a family may forgive a physician an error in diagnosis, may forgive even a fatal termination of a disease, but never will a family forgive an error in prognosis." Keep in mind this saying, and also when I tell you that in the presence of an aged person you must be more constantly on your guard and look out for surprises more constantly than in that of any other patient.

Furthermore, it may be well to tell you at once that in the interest of your patient as well as in that of your own reputation you are in duty bound not to neglect the study of senile diseases, because they are frequent, because they assume usually a very peculiar personal course, and because they may give us some very disagreeable surprises.

Such a special mode of existence as senility is cannot but also demand special correctives, and so you see that senile therapeutics presents a very personal batch in general therapeutics.

Here, then, you have a number of reasons which would, I think, convince you that it is both interesting and profitable to devote a little time to become acquainted with senility, to become familiar with its manifestations, to fortify ourselves against its surprises, to learn to manage its therapeutics. I know well that it is not fashionable at all at the present time to believe in therapeutics and that a high degree of skepticism in regard to remedies is rather a matter of honor.

I will make before you, in all sincerity, a confession of absolute faith to the contrary. I do not believe in medicine without remedies, and I cannot admit that a physician has done all that is to be done when, putting into effect in the service of his patient a vast amount of medical erudition, he was able to discover the nature of this patient's illness, the causes of the same, and its immediate and more distant effects. When a physician has done all this, there still remains something for him to do: he has to apply a treatment.

If all that he knows give only negative results, then let him search: for as long as he has no certainty that he has arrived in the presence of an organic change from which there is no recovery, hence irremediable, he has no right to despair because his weapons proved unsuccessful. Let him forge other arms, and though he may not succeed, let him at least try. For all his repeated efforts are cumulative, they blaze the way, level the

difficulties, and may make it possible for someone else to reach the goal.

The saying has not been enough insisted upon, that he who has discovered a good remedy has done more for humanity than he who has written a good book. Ask a poor arthritic while he is suffering from an attack of migraine what he thinks of this or that book full of learned philosophic dissertations, advise him to love and relish it ordinarily between his crises, and he will answer you that a gram of analgesin would suit his case far better. So would a few milligrams of a reliable digitalin in an attack of a true asystole.

Hence I have good reason for saying to you that one has to learn how to take care of old people, and that from a threefold point of view, namely, (1) from that of senile hygiene, (2) from that of an exact and rapid estimate of the resistance which the patient would be able to offer against the disease that attacks him, and (3) from the point of view of the therapeutics that would be useful to him.

My aims in these lectures are very definite ones. I purpose to study with you the modifications in the human economy which accompany senility and which chance constitutes for him a manner of living new in some respects, for the differences are important which from the points of function separate the adult from the aged person. Consequently we shall have to stop at every bodily apparatus and consider what changes the senile state does produce in its individual parts during the evolution of ordinary diseases.

This program is somewhat extensive, but it ought not to frighten you, for I do not intend to finish so long a journey in one single stage across the entire field of pathology.

I think it best to limit our scope, and shall be satisfied if during this term I shall succeed in giving you a clear idea of senility. It occupies a corner in general pathology which needs some clearing up and of being put in a proper light, and more so as medical literature is rather scanty on the subject.

You will easily understand that I do not wish to bore my hearers with tiresome lore in this lecture. I shall be careful not to parade before you the complete list of authors who have treated some one point or another of this subject which now occupies our attention.

For those of you who have some bibliographic curiosity and must needs have dates and names to make their knowledge more precise, I have to say this: You can find in Charcot's first lesson on the "Diseases of Old People" a remarkable exposition of the scientific activity on this subject, and you may complete it with the inaugural address of Dr. Brousse, a thèse d'agrégation (1886), under the title, L'Involution Senile; and the "Leçons sur la Vieillesse," Demange Nancy.

You will agree at once with Charcot that our country holds the first rank in this study, and so much the more so since senile pathology had not acquired the right of citizenship in nosology before seventy-five years ago at the outset. Some among you may be astonished that senile pathology remained in obscurity till the beginning of the nineteenth century. I do not think it idle to detain ourselves a little while on this point, for this will bring me naturally to tell you what I conceive what senility really is.

To the question, why the study of the diseases of old people was taken up only so recently, a number of answers might be given. But the first, however, which presents itself to the mind with greatest force and also explains the almost absolute silence of authors up to this day, is that it was necessary first to have an accurate knowledge of the facts of normal anatomy and physiology before a study of the different modes of existence at different periods of human life could be undertaken with any degree of authority. Do you believe that a Pinel, a Roslau or a Beau in France, a Duy in England, or a Canstatt and Geiss in Germany, not to mention more ancient authors, could have written their books or have set up their observations if the knowledge of normal anatomy and physiology had not already become sufficiently exact to enable them to establish comparisons?

Between a senile kidney and an adult kidney you could not establish a difference

unless you knew sufficiently the minute anatomy of that organ, and even then you often would need a histological examination in order to satisfy you definitely, so slight would at times be the external differences. You will easily see that before the time when scientific observations became the sole rule in the search for truth any invasion into the domain of senile pathology was impossible, and so, too, would it have been idle to make the attempt during the period when medicine was being placed on sufficiently sure foundations so that the exact relations between the various physiological phenomena among themselves became possible. Hence the differences under which one and the same phenomenon might present itself at different ages of life came to be studied out only very gradually.

This, also, is the reason why you will find in ancient writers who treated about old age nothing more, as Charcot so justly says, than a "paraphrase" of Cicero's "De Senectute." And one of the latest works that has appeared on this subject, the inaugural address by M. Brousse treating of senile involution, bears as an inscription Cicero's words: "*Senectus ipsa morbus.*" I am unable to pass by these words without discussion, words which have had such an influence on the special medical literature on senility.

The importance of general ideas in medicine is so great that there could be no real and enduring progress without their influence. Without these general ideas the sciences are no more than a tiresome series of shrivelled and sterile notions.

Who is the better physician? Is it he who registers more closely the facts submitted for his examination? Will it be he who would not allow the least detail of the patient's symptoms to escape him? No! for even the most complete examination will remain resultless if it does not disclose the point in which the facts observed combine into one general idea, and this idea then makes possible to embrace into one grand and collective picture the relations of the facts observed among themselves, and then the relations of these facts to the general laws of physiology. For then only does light break forth and the listing of a disease into the general category of diseases becomes possible; then only the interrelations of it all become clear, and the diagnosis presents itself with such distinctness that not even a multitude of little details will be able to obscure it.

Thus it is that by the light of given facts now fixed for all time and sure, you will reverse your steps to dig up your subject; and every find will complete your bundle of proofs, will reinforce your observation and confirm your conception of the disease in hand, to the great benefit of your patient and to the greater profit of your own medical authority.

(*To be continued*)

POISONING FROM WHITE OF EGG

Poisoning from egg-albumen, although not altogether unknown, nevertheless is very rare. An interesting case of this kind is cited by Dr. Schoenherr, one that happened to a fellow physician. This physician consumed white of egg so persistently that at length he conceived an intense disgust for this article of food. A number of years after that he partook of a side-dish in the composition of which there entered the white of egg, and thereupon developed the symptoms of acute gastrointestinal intoxication, including salivation, nausea, vomiting, diarrhea, chills, and cardiac palpitation. These symptoms eventually disappeared, leaving no trace whatever.

In other cases the partaking of side-dishes prepared with white of egg gave rise to analagous symptoms without any knowledge on the part of the victims that any was contained in the dish.—*Fortschritte d. Medizin*, Jan. 13, 1910, through *La Médicine Orientale*, 1910, p. 76.

PROPAGATION OF TYPHOID FEVER

In a recent communication by Prof. Delorme to the Académie de Médecine, he protested strongly against the exaggerated importance being given to the carriers of bacilli, a fact which has been criticized in

Germany also. Delorme's conclusions are that in the genesis of endemic or epidemic typhoid fever the influence of chronic carriers of typhoid bacilli, whether having the disease in a latent state or while the carriers themselves are perfectly healthy, is exceedingly unimportant.

The mistake of thus exaggerating the importance of these disease-carriers may become actually dangerous, for in this way the teachings of prophylaxis may be turned away from its true aim, which insists that the most immediate cause of these endemic-epidemics lies in the pollution of the drinking water. The profession ought to demand of the public authorities that because of the danger to which the populace is exposed, guilty communities should be forced to do this as may be necessary to make their drinking water wholesome by constructing proper sewers and sinks, and that as speedily as possible.—*Le Journal de Médecine et de Chirurgie*, Montreal, Can., Jan. 1, 1910.

EOSIN IN URINE

Wagner found eosin in the urine of two children soon after the Christmas holidays. The color of the urine was like that of diluted juice of red raspberry. Plaut obtained the eosin by acidifying the urine, adding alcohol, and extracting the coloring substance with chloroform. From dried urine the eosin could be extracted directly with alcohol. By color comparisons it was ascertained that a liter of the urine in question contained about one-fourth of a milligram of the coloring matter. It may be mentioned that eosin is regarded by the Imperial Hygienic Institute as harmless, so that such colored urine may be frequently observed, i. e., from the eosin employed for coloring sweetmeats. —*Pharmaz. Zentralh.*, 1910. p. 355; from *Berl. Klin., Wochenschr.*, 1910, p. 318.

IMPROVED FILLING FOR ICE-BAGS

Franz Freudenberg recommends a mixture of finely powdered ice with hemp meal as recommended in French medical journals. The mixture forms a stiff plastic pap, the advantages of which are that it develops a more even degree of coldness than ice alone, that the bag filled with this mass readily applies itself to every part of the body, especially the head, better than simply broken ice, and is more grateful to the feel. In this form the ice also melts much slower and the effects are more enduring. In the absence of hemp meal linseed meal might be tried. — From *Therap. Rundschau*, 1909, p. 213; in *Pharmaz. Zentralh.*, 1910, p. 360.

DANGER IN THE USE OF OXYGEN GAS

Dr. Oskar Blumenthal has published a short communication about a steel cylinder which was to contain oxygen gas for medicinal purposes but contained nitrogen gas instead, and was used. The author recommends, therefore, that the contents of a cylinder purporting to contain fresh oxygen gas should at least be tested with a glowing chip of wood before being used.—*Muenchen. Med. Wochenschr.*, 1909, 2483; in *Pharm. Zentralh.*, 1910, p. 93.

CONTAGIOUSNESS OF POLIOMYELITIS

W. J. Robinson, in *Therapeutic Medicine*, quotes evidence both for and against the theory of the contagiousness of poliomyelitis, that disease of childhood which cripples so many of the little ones. A recent epidemic in the Scandinavian peninsula and one in England seem to support the theory, and in Denmark and Sweden the victims are now isolated. On the other hand, aside from the single epidemic reported in England, all the cases noted have been sporadic.

In this connection it is a matter of extreme interest that Flexner, of the Rockefeller Institute, recently has announced, unofficially, that the Institute has discovered a serum which promises to be as specifically a cure for this acute infantile paralysis as that for cerebrospinal meningitis, also discovered by this institution. And this serum is the direct result of experimental work on monkeys—the product of a much-abused though *not* cruel vivisection.

Self-Reliance for the Physician

THE essay on self-reliance written by Ralph Waldo Emerson should be read by every physician in the land, for therein he will find much food for thought. Self-reliance is absolutely necessary for the physician, today more than ever before, owing to the great revolution taking place in the methods of healing the sick by the profession and the inroads being made by charlatans, Emanuelism, osteopaths, Christian science, the therapeutic nihilist, and the advertising swindles of the patent-medicine man.

The worst curse is the patent-medicine advertisements of the various cures made by gulping down the dirty, nasty, poisonous malt whiskies which are heralded to cure everything, especially consumption, bronchitis and asthma. These not only do the patient no good but only stimulate for a while and then hasten the demise. In these days, when temperance advocates are preaching against the saloon keeper and against whisky, it would be wise not to forget tackling the quack advertising firms that recommend, throughout the whole land, in all the daily papers and in bold type, often with the recommendation of some rum-soaked professional man and unscrupulous minister, the use of this malt whisky for the cure of disease.

Whisky never did and never will cure disease. Instead, its consumption in moderate quantities has proved positively harmful to the human system, and it is better let alone. Another one of these advertising quacks heralds a decoction of Peruvian bark and diluted alcohol as a cure. All this stuff is principally consumed by women who buy it by the half-dozen bottles at a time and drink it as they would whisky. In fact, they drink it for whisky in disguise. In ever so many families have I noticed this condition, and that not infrequently in families of the better class, where it is used as a beverage. in place of plain whisky. The consumption of this stuff by the people is doing more harm than any other advertised nostrum, except a special brand of malt whisky that I know of.

Then, again, there is the female vegetable compound which is advertised as a panacea for all the ills of womanhood. We know that no medicine taken internally will nor can cure any pathologic conditions of the internal female organs of reproduction except it be to relieve pain and to cure some reflex conditions due to congestion and inflammation of minor severity. In most cases there is a chronic condition which requires douches, electricity, tampons. Curetting the womb, sewing up lacerations, and in many cases application of the knife must be resorted to for relief or cure of these conditions.

As to the osteopaths, I will say that they claim that all the pains and aches are due to some dislocation of the various bones in the body, especially of the spine, and that by massage and rubbing the bone returns to its normal position, when the patient is cured. What a farce to perpetrate such nonsense upon the innocent people! Most of these fellows are so void of the slightest knowledge of anatomy that it makes them ridiculous if you question them, as I had

occasion to do in five or six cases during the last four years.

Emmanuelism generally practises suggestion. That suggestion will help in certain cases of a nervous type, especially women, I have no doubt, but most of the patients relieved are cranks and people of feeble minds, who can be duped out of their good money. This happens very often among those of a spiritistic tendency.

Christian science is another farce. What evil is there not perpetrated in the name of Christianity. But this, I believe, is the worst of all of them, and is a slander upon the creator. *Prayer alone never cured anyone*, no more than a prayer would clean a tub of soiled wash for a washwoman. If she wants her washing cleaned, she must set to work, must rub, boil and rinse the clothing, and then, if she has faith in God, by silent prayer her work will become lighter, for lightness of heart makes light work, just as a sorrowful heart makes work seem heavier—but as to getting soiled linen clean with prayer alone, *never*.

As a young man I once attended a faith-healing meeting in Jersey City. They were praying and anointing a poor cripple of a man about fifty years of age, who had to walk with crutches. I can not recall what the nature of his disease was. After the excitement got to a certain pitch, the healers cried to him to stand up, throw away his crutches and walk. He did, but only got to the center of the church, when he fell into a heap upon the floor. I assisted in getting the poor fellow into a coach so he could be taken home. What an abominable farce this is, and to think that thousands of people flock to this and other like places and kiss socalled relics of dead saints to be cured of their ailments. What hypocrisy! This is surely taking God's name in vain.

The therapeutic nihilist, we all know, is a person who does not believe in drugs. That the physicians of former years had good reasons to doubt, in many cases, the efficiency of drugs is undeniable, for the methods of drugging the patients of bygone days with large and nauseating decoctions and infusions were enought to repel anyone, and that the doctors themselves got disgusted is no wonder. But today our medicaments no longer are repulsive decoctions and infusions. We improved to fluid extracts and tinctures, then to alcoholic extracts. Later we got a few alkaloids, say, quinine, morphine, strychnine and atropine. These substitutes were so extensively used that decoctions and infusions were almost entirely discarded.

Now, finally, we are in the period of progress where we can prescribe almost all drugs in the form of active principles—principally alkaloids and glucosides—so that we need not use anything else for the cure of disease, with the exception of those minerals—salts—that are required in various cures in conjunction with the alkaloids, or alone, as the case may be.

What a change there has taken place within the last four years! How any progressive physician can now practise medicine without employing the alkaloids, which have a positive and definite action, is hard to understand. For when the alkaloids are given dosimetrically, till effect, and then less often as required, you will find that it makes the practice of medicine both successful and pleasant, inasmuch as you can carry enough granules in a pocket-case to treat almost every disease coming under your observation.

No physician who once has tried this method will ever change back to the old way, for once he gets out of the rut, he will make it his business to avoid it thereafter. I have yet to find one who has given up alkaloidal treatment after giving it a fair trial.

Here is where self-reliance comes in. For the physician of the present time to accept everything and anything from doctors and medical journals as gospel truth is folly; therefore relf-reliance is to rely upon one's own ability, resources or judgment—it is independence of character to judge for yourself alone.

This means to go to work and try the various drugs and methods advocated, test them yourself, and observe whether they will do as claimed. If you find to the contrary, say so; do not be afraid. Say that the results were not as someone had said, and say how you found the remedy to act. Trust

thyself, think for yourself, judge, speak, investigate for yourself, let your brain work out ideas, and let the profession know of them. Take special notice of the action of drugs upon your patients, especially with such arms of precision as the active principles, the alkaloids. For, to master how and when to give, and when to reduce the dose, must be learned, and to learn you must be self-reliant to do it yourself. And as practice makes perfect, so will perfection in mastering how and when to give make you so self-reliant that you will know just what to do in any emergency and in any case you may be called upon to treat. Then, when you have so perfected yourself, you will rarely have to call for consultation in your cases, of however severe or complicated a nature; but when it is done, then only to satisfy relatives and friends.

Doctor, I can assure you, it is a pleasure to converse with an alkaloidal practician about medicine. It is a treat to hear these men say how they cure pneumonia, typhoid and scarlet-fever, pleurisy, bronchitis, croup, rheumatism, with the active principles, and how, in many cases, they abort disease, and to have them tell you how they now save the majority of croup cases, which formerly were such a source of anxiety to them, and of the many cases that did not recover. What a wonderful change and what opportunities are at hand today for those that are still in the dark as to the active-principle method of treating disease.

Again, I say, practise self-reliance. Be not timid and apologetic, but declare yourself. Do your own thinking and experimenting. Become master of yourself and of your profession.

W. F. RADUE.

Union Hill, N, J.

THE "CRIMES" OF THE DISPENSING DOCTOR

The Michigan Tradesmen for February, 1910, is before me. In it is given a report of the meeting of the Michigan Retail Druggists' Association, held in Grand Rapids last September. In this report one Mr. Engelhard is accredited with sounding the slogan of the druggists' association in the following language, in part:

"Under the present lax system the physician may diagnose a case, prescribe for it, prepare the prescription and administer the medicine, and nowhere is there a record of what he has done, a check against mistake, or a safeguard against criminal intent. If the patient dies, the physician who diagnoses, prescribes, dispenses and administers also writes the death certificate, and thus can bury any mistake he may have made or destroy the evidences of crime. This system clothes the physician with too much power, responsibilities entirely too great, and public safety demands reform.

"In the countries of Europe dispensing by physicians is absolutely forbidden. In England ethics forbids the physician to prepare his own medicines. It is in this country alone that the dispensing physician is tolerated. He has so encroached on the druggist that the prescription business is not a third of what it should be, and this encroachment is every year becoming greater.

"If dispensing by physicians is to be permitted to continue, the law should require that they shall give the patient a copy of the prescription they prepare, that there may be some evidence of at least what they intended to administer; also that when the patient dies the coroner be called in to give the death certificate.

"The law for druggists requires certain years of study and training, and rigid examinations must be passed before certificates are issued; but the dispensing physician, under the divine right which he assumes, can deal out life and death and no questions are asked as to his qualifications. The Federal and State laws fix standards of purity for the drugs that druggists handle, but the dispensing physician is superior to the laws and can hand out anything he wishes and no questions asked. The dispensing physician is not merely a trade evil, but he is a menace to public safety and to good morals, and the law should be made rigid against him. Only in charity cases should a physician be allowed to prepare his own prescription."

The convention heartily concurred in Mr. Engelhard's remarks and adopted his views as the basis for the legislation that would be asked for.

What an arraignment of the family physician, the American practician! He is the remaining outlaw against society. He should be grasped, shackled, held by the strong arm of the law. He is the arch criminal and felon running at large under the stars and stripes. A criminal by "divine right." Ha! Ha! . . . . Rats!

And so, we are informed, it is wrong for this professional "fiend" to dispense remedies to any person who has money with which to pay his bills. "Only in charity cases should a physician be allowed to prepare his own prescriptions."

Here is a new analysis of the moral law. The druggist does not wish the patronage of the poor; therefore the physician should be licensed to kill them. And therefore this one exception should be written in the law, that the poor, "whom we have always with us," may be ruthlessly (and without the paternal mercy of the law) slaughtered and consigned to an untimely grave by the dispensing physician without his accounting to the penal code.

"And all this the convention concurred in, and adopted, as the basis for the legislation that will be asked for."

Well, this is commercialism with a vengeance, sure enough. Maybe, after this piece of legal philosophy has become active, none will object to one being made permitting the druggist, with revolver in hand, to cause the American practician to stand and deliver, without the usual consequences of the highway robber. For we are told he is a "trade evil," told so by Mr. Engelhard, and the druggists believe it.

It is money that the druggist wants, and far too often it occurs that he will not scruple to do questionable things under the law to obtain it. He frequently prescribes for the sick himself, he substitutes public opinion for or against the practician, according to the degree of servitude the latter may render him or the independence he may exercise, irrespective of this self-constituted lord and master—the druggist.

JAS. A. DEMOSS.

Thayer, Kan.

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[It is to be regretted that those who pose as being the druggist's friends should urge him on to measures which will widen the gap between him and the doctor. The doctor dispenses his own remedies because this has become an economic necessity. He will continue to dispense, friend druggist.—ED.]

CALOMEL IN PHTHISIS

A Florida correspondent, in a communication recently lauded calomel as a useful remedy in phthisis pulmonalis and we felt constrained to express our disbelief in the value of the drug in this particular disease. In response the doctor wrote: "Your dissenting remarks regarding the use of calomel in the treatment of phthisis were written, it seems, somewhat hastily and without taking into consideration that there is quite a difference in the employment of calomel in the North and in the South. You have not considered the difference in climate and in the conditions of life in this region. Again, you did not know just the manner in which the calomel is used by me. I have five cases under treatment now. The treatment is adapted to the condition of the patient, regarding the doses and drugs used.

"My treatment consists in giving antituberculosis granules and calcium sulphide, gr. 1-6, and 1-4 grain of calomel two or three times a week, followed by a large dose of a saline laxative, to clean out the system thoroughly. Again, in certain cases I combine calomel, 1-20 grain, and calcium sulphide, 1-6 grain, and give six times a day. I find that by the small doses of calomel you can diminish the number of germs and if from time to time you will examine the sputa under the microscope you can see that the movements of the germs grow weaker and weaker until they cease altogether.

"Under this mode of treatment I think calomel gives results that no other line of treatment will. Do not think, however, that I give all the credit to calomel; but with

the treatment outlined I have better success than with any other. Now I should like to have you express an opinion on this treatment. Results are what we are all after, and so far this procedure has given me excellent results."

Our answer to the doctor was that the writer, having practised both north and south, fully appreciates the great difference in the action of calomel in the two localities, but he based his opinion upon a knowledge of the action of calomel upon the human body, as well as of the metabolic disturbances in the phthisical patient. In *The Medical Record* for January (1910) will be found an article by Dr. Ward, on the use of nuclein in phthisis, which is well worth reading in this connection.

We have to deal with distinct and fairly well-understood changes in blood and cells; to get rid of the waste and bacteria-produced toxins is essential; however, the reestablishment of normal metabolic conditions and oxygenation of the system are the main indications. The phthisical patient dies either from profound sepsis or anemia (deoxygenation) and, surely, no doctor would claim calomel to be particularly indicated under these circumstances? We acknowledge calomel has a place in the treatment of phthisis just as it is useful in all toxemias, but we are sure that a thorough review of the situation in the light of present knowledge will cause our southern friend to agree that any treatment based upon the use of calomel is fundamentally wrong. Still, we may not understand each other fully and further details may clear the situation. In our opinion, so far as advised, the calcium sulphide and drugs comprising the antituberculosis formula must be credited with the destructive effect upon the bacteria noted by our correspondent.

Of course, results are what we are after, and results will never be secured unless we have a clear comprehension of what we have to deal with and the action of the corrective agents exhibited. Medical men have been only too prone to take things for granted and to follow certain lines of treatment because they have been recommended by "authorities." It is well to remember that these august practicians were "authorities" in the days when our knowledge of chemistry of the human body and of pathology was anything but satisfactory. Occasional small repeated doses of calomel followed by a laxative saline draught are as serviceable in phthisis as elsewhere, but to give the drug for its effect upon the invading bacteria or the system is, we think, a therapeutic error.

"THE NEW ENGLAND MEDICAL MONTHLY"

Dr. W. C. Wile, who has conducted the above-named journal for many years, decided that he could no longer continue as directing editor and so has severed his connections with the same. *The New England Medical Monthly* is now published under the editorship of Dr. Francis D. Donaghue of Boston, Mass., and is incorporated with *The Annals of Medical Practice* which was formerly published as *The Annals of Gynecology and Pediatrics*. We wish the publication, in its new era, all possible success, and we are certain it will continue to fill an important position among the New England medical publications.

HEAT-FEVER IN INFANTS

During the extreme hot weather we had here, during last August, a temperature of 108 to 112 degrees. We had two patients, infants three days old, with a temperature of 104°F. Treatment: Strip the babes, wrap a cloth around them and place them in a pan of cool water for twenty to thirty minutes and repeat as required, which was only twice in one instance and three times in the other.

W. A. Bates.

Purdon, Tex.

[Good! In cases of extreme temperature, either in adults or children, hydrotherapeutic measures should be resorted to, using ice-cold water if the reaction is prompt, or promises to be good. In young children, however, this glaciotherapy (to coin a word) should be used with considerable caution, as the

nervous system is much more sensitive and there is danger of producing dangerous shock. Start with cool water, not cold, and watch reaction. When cold water is applied, it should always be associated with vigorous friction.

If the pulse is vigorous give aconitine in small repeated doses, according to Shaller's rule, bracing with brucine, as needed. Clean out quickly, using cold enemas and following with minute doses of calomel and saline laxative. If there is the slightest evidence of cerebral irritation put an ice-bag to the heads and give gelseminine.—Ed.]

TOO MUCH OF IT

"Spread-eagleism" is characteristic of the American. He never aims at simplification. If he builds a house for two he builds it large enough for ten. I know a doctor who has a wife and one boy and he has a house with ten rooms. There is too much of it. Recently he begins to see his mistake and is looking for lodgers. I know a young doctor recently located who has a surgical outfit suitable for the Mayo brothers. He will never do enough surgery to pay for his outfit. There is too much of it. I know another doctor who has three costly rooms for an office and the rent consumes a large part of his income. There is too much of it. But this is only preliminary to what I want to say. There is a superabundance of everything pertaining to the practice of medicine; too many ailments, too many remedies, too many doctors, too much of the whole affair. To illustrate:

One food—milk—suffices for the first year of human life, proving that a multitude of foods are unnecessary. A large family lives comfortably and harmoniously in a small house, proving that the large mass of brick and mortar piled together in the modern dwelling is unnecessary. Experience teaches that the best surgeon has only a few tools and that the best doctor uses but few remedies.

Life is too short to waste any part of it in superfluities. To illustrate again:

Suppose you start a talented young man in the study of modern therapy with the prefixes and suffixes—how long do you suppose it would take him to master it? He could spend a lifetime in studying drug-therapy alone and then not begin to understand it. How is he to master the continual and continuous additions? I am an old man and I can scarcely name the different kinds of methods of treatment, much less understand them. Don't you see there is too much of it?

If one food answers for the first year, why should it and a few other foods not answer for the rest of one's life? I once knew an octogenarian who lived principally on cornbread and buttermilk. He never had but one serious illness, erysipelas. He was a hard-working farmer. He raised ten boys to full manhood—yes, to middle age—in a modest house with three rooms. Every one of these men was healthy and strong. His doctor's bill was practically nothing. How does this compare with the modern one-boy family, the brick and mortar pile, and the modern doctor's and druggist's bills?

Oh, I tell you, there's too much of it. What we need is a great leader to inaugurate a movement to simplify. We need to be taught that which is useful and nothing more. If all our time were spent utilizing useful knowledge how much better times we should have.

W. P. Howle.

Charleston, Mo.

[Doctor, you are right—from your point of view! But there are a great many different points of view. Charles Wagner did not find many adherents for his doctrine of the "simple life," and even those who, for want of some better excitement, took it up as a fad soon tired of it. It's all relative. What may appear a luxury to you or to the man with ten children in a three-room cottage, may be abject poverty to your neighbor. Of course there is "too much of it," in a great many ways, but it is the result of our national progress. There is "too much of it" everywhere in nature. Look at the enormous number of seeds that are lost every year for the comparatively few that germinate and fulfil their destiny. Are you going to quarrel with nature for producing too much of it?

Nor can I admit that the multiplicity of drugs and the multiplicity of surgical instruments are harmful. For the busy surgeon or physician many things are needful which for the beginner are superfluous. Instruments and remedies are useful just in proportion as we know how to use them. New remedies are constantly being introduced which have distinct value, and it would be a distinct loss to mankind to have them eliminated. The mistake is for the man (whether doctor or not) to try to use something he does not understand and whose value he does not appreciate. Thus used the "something" becomes a source of danger instead of a power for good. Let us master all we can—one thing at a time—thus enlarging the boundaries of our knowledge and increasing the field of our usefulness.—Ed.]

A CORRECTION

In Dr. Bulloch's article: "Give Us Air" (page 791 of the July Clinic) the first sentence of the second paragraph reads: "Within the last week fifty percent of the regular establishment of the army have applied for pensions, claiming as the chief disability tuberculosis." It should state that of those applying for pensions from the regular establishment of the army, 50 percent claim tuberculosis as the chief disability. Please take your pen and make the proper correction.

THE LOCAL ACTION OF NUCLEIN

The action of nuclein as a stimulant to leukocytosis and therefore of organic defense against infection is beautifully seen in its local application, either to prevent septic infection of wounds or to reduce it. The writer has recently in several cases employed the remedy in such a manner with the best results.

For instance: One young man occupied in the press room, cut the first and second finger of his right hands. The wounds were cleansed with carbolic solution and each finger dressed with absorbent gauze which was saturated with nuclein solution. The next day the wound was found entirely cleaned, there was no inflammation, no redness, no swelling, no pain.

Another case: A young lady had used nitric acid on the dorsum of her right hand to burn out a wart, at the recommendation of her druggist. She had not been careful to protect the healthy tissue, which consequently was affected by the nitric acid and an ulcer formed which became infected. Nuclein applications succeeded in cleaning up the wound and causing it to heal well.

Another case: A young lady with hang-nail on the index finger of the right hand, which became infected. There was suppuration and ill-smelling discharge, some swelling of the finger and hand. Nuclein applications caused the wound to heal up well.

The writer has employed nuclein in other cases and has been astonished at the certainty and promptness with which the drug acted in relieving the results of infection or in preventing it.

H. J. Achard.

Chicago.

THE TRI-STATE MEDICAL SOCIETY

The eighteenth annual session of the Tri-State Medical Society of Ohio, Illinois and Missouri will be held at the Planters Hotel, St. Louis, September 13 and 14, 1910. Dr. William Jepson of Sioux City is president, and a splendid program has been provded. The address in medicine is to be delivered by Dr. J. H. Kellogg, of the Battle Creek Sanitarium, and the address in surgery by Dr. B. Merrill Ricketts of Cincinnati. There is a long list of excellent papers, in which we are more than pleased to see a goodly sprinkling of those on therapeutic subjects. The Tri-State has always been a therapeutic society, and as such should have a big membership among the rank and file of the profession.

Among those who are to read papers we note the names of such men as Henry T. Byford, Truman W. Brophy, C. S. Neiswanger, George E. Pettey, Ralph W. Webster, William H. Smith, J. L. Boehm, Sam

Weatherby, Heber Robarts, F. B. Tiffany, W. F. Waugh, John D. Robinson, E. P. Ward, C. F. Wahrer, J. B. Bacon, and other physicians and surgeons equally well known.

A special feature of the meeting will be a number of specially arranged clinics.

We are planning to be present at this meeting and we hope to see many of our friends there. We believe that it will prove one of the most interesting of the year.

"ST. PETER AT THE GATE"

Joseph Bert Smiley, author of "St. Peter at the Gate", is dead. He was found lying in the woods in May, 1909, near Kendallville, Indiana, with a bullet hole in his temple. He had been in poor health for some time, and being on a visit to his parents, in Kendallville, Indiana, in a period of depression committed suicide. His poem gave him a national reputation. Your remarks in the July number prompt this letter.

L. A. Merriam.

Omaha, Neb.

THE IMPORTANCE OF NUTRITION IN CARDIAC DISEASE

In these days of specialism it is with some degree of diffidence that the general practitioner undertakes to contribute anything to a medical journal, but it has been my happy experience occasionally to gather some valuable information from the reports of cases made by men who have left the field of bacteriology to those who prefer that study rather than the more practical but necessary work of treating disease and endeavoring to aid in its cure, regardless of the size, shape or characteristics of the particular germ which is supposed to produce it or at least is found associated with it.

The bacteriologist has his sphere of usefulness, but the general practitioner has also a field in which to work, and it is with a view to the practical side of medicine that the following cases are reported and some suggestions offered.

It is a well-known fact that cardiac lesions are usually very difficult to treat satisfactorily and require the exercise of a great deal of patience on the part of the physician and the patient while the result of treatment is at times very discouraging; but as I have had under my care during the past two years three cases of valvular disease with dilation and dropsy, all of which were apparently hopeless cases when first seen but which eventually recovered to such an extent that they are now able to attend to their usual occupations. Perhaps it may interest the reader if I report briefly those cases, selected from a number of others where the conditions were not so serious.

Case 1 is that of a man 60 years of age, with mitral regurgitation, feet and legs edematous to such a degree that he was unable to use them, unable to sleep except in a sitting position, poor appetite, and very much emaciated. He had been treated in the usual manner with digitalis—in order to keep the heart going, as he had been told—but no attention had been given to his general health. It occurred to me that the heart, being a muscular structure, and all the muscles of the body being in such a wasted condition, any improvement in the state of his general health would be shared also by the heart.

He had taken digitalis until the stomach rebelled and he was compelled to give it up. Now digitalis is very useful and necessary, but unless the general system is also built up while it is being administered it has about the same effect as a whip would have applied to the back of a starving horse. So I put the patient on iron, quinine, strychnine and mixed fats, with plenty of meat-extract, eggs, milk (peptonized) and other tissue builders, and hearing of the then-new preparation, digalen, tried that in the place of my usual digitalis preparation, and found it perfectly satisfactory in gradually increasing doses up to ten minims three times a day. The patient steadily improved and five months later had increased in weight 34 pounds; is now able to work at his former occupation as a plumber. I should add that during the first three weeks of treatment, and until all

symptoms of dropsy had disappeared, he took half an ounce of magnesium sulphate every second day, which produced several large watery stools. It might be observed at this juncture that digalen is a solution of Cloetta's soluble digitoxin. Thus at last we have at our command the most potent active principle of digitalis leaves.

Case 2. Woman, aged 59 years, in condition very similar to aforementioned case; dropsy excessive, feet and legs greatly swollen; abdomen enormously distended: unable to lie down. I removed through large aspirating trocar at first setting 16 quarts of fluid, five weeks later 12 quarts, four weeks later five quarts, and three weeks after, at last setting 2 1-2 quarts, since which time there has been no return of dropsical effusion. I administered, in addition to tonics, nutritious food, etc., digalen in seven-drop doses every six hours, which was well borne, although she had been compelled to abandon the use of digitalis on account its producing nausea when taken in average dosage. Sulphate of magnesium was taken every second day until edema of the feet and legs had subsided. Digalen was continued for four months. Case continued to improve and at this writing is in fair health, walks out some times as much as two miles, drives out, and attends to her household duties in a large family. She has gained in weight 33 pounds.

Case 3. Woman, 42 years old, when first seen, 15 months ago, was in a pitiable condition, unable to lie down, feet and legs very much swollen—the later so much so that they could not be bent at the knees and she was compelled to sit up in a chair night and day.

Diagnosis: mitral regurgiation. Gave usual tonic treatment, restricted amount of fluid, but plenty of easily digested food, and digitalis every five hours; epsom salt every second day. After two weeks she could not retain digitalis, then I put her on digalen, which was well retained. Edema slowly subsided and at the end of five months, during which time she took digalen continuously in seven-drop doses every five hours, which showed none of the so-called cumulative effect of digitalis, she was able to walk out, take long trolley rides, and visit the seashore during the past summer. She returned with a gain in weight of 22 pounds, and is now apparently well. I say *apparently* because we are not to suppose that there has been a complete removal of the cardiac lesions, but compensatory hypertrophy is well maintained, as in the two previously mentioned cases.

In conclusion, the point I would make is that many of the apparently hopeless cases of valvular disease may, by proper nourishment and tonic treatment directed to the improvement of the general health and building up of the muscular system, by well-selected and easily assimilated food, plenty of fresh air and careful hygienic surroundings, with perhaps a good amount of encouragement thrown in (as most of these patients are apt to become despondent), be greatly improved.

For its special action on the cardiac muscle I have found digalen far superior to the familiar digitalis preparations as it does not impair the appetite or disturb the stomach, and is apparently perfectly safe, even when taken for long periods in carefully regulated doses.

In case of cardiac disease too much reliance has been placed on drug therapy, while the importance of proper nutrition of the entire muscular system and the building up of the general health of the patent has been so frequently ignored, or only casually referred to, by many of our authorities on diseases of the heart. Drugs are an absolute necessity, but not more so than the reconstruction of all the wasted tissues of the body.

S. E. Gibbs.

New York City.

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[Doctors, everywhere, are beginning to realize the undependability of the galenic digitalis preparations, and turning to the use of the active principles, thus (sometimes almost in spite of themselves) crawling into the "alkaloidal" band-wagon. Our own preferences for the water-soluble digitalis principles, as in German digitalin, are well known, but the underlying principles guiding Dr.

Gibbs in medication are our own, and the remedies he uses excellent.—Ed.]

BYRON ROBINSON SCHOLARSHIP IN ANATOMY

Several months ago we called attention to the bequests made by Dr. Byron Robinson to the library of the University of Wisconsin. This library is to be known as the Robinson-Waite Library, in honor of the donor and his wife, Dr. Lucy Waite.

The collection amounts to more than 1,500 volumes and is valued at over $4000. It will give the University of Wisconsin the most complete library on anatomy and the history of medicine of any state institution and is one of the best in the country on this subject.

Dr. Robinson also provided for a scholarship in anatomy in the University of Wisconsin. This is valued at $550.00 a year and is accessible to both men and women students of medicine. The purpose of this scholarship is to encourage the anatomical, physiological and pathological study of the sympathetic nervous system. Verily, as the good book says, "Their works do follow them."

LOCAL USE OF MAGNESIUM SULPHATE

While others have their little mite to say, as to the application of magnesium sulphate, I want to say that I use it, and have used it with success, and use it almost every day.

Here is one case. Mr. S. was struck on the inner side of the knee with a hammer, while fixing up a wire fence, and inflammation set in. One doctor was called, treated it, and in a few days another doctor was called. Then splints were applied, and the patient was in bed for seven long months. He got no better, and the pain and swelling was just as bad as ever. So the third doctor, a surgeon, was called. His answer was that an operation was necessary. Then it was up to the patient to be operated upon at home, or go to a hospital. But he hesitated, said "No," and that he wanted to see Shelton first and get his opinion. So he was put into a spring wagon and brought seven miles and up stairs to my office, with crutches, splints, and two to help him.

I must say he arrived in good condition. I took the splints and bandages off, to examine his knee, and heard his story. I had just finished reading Dr. Burgess' two books, and my first thought was to use the Burgess treatment. He asked me if I could cure him, save his knee, save going to the hospital, save the expense. I said that I thought I could, and he of course wanted to know how long it would take. I gave myself sixty days. The time I used was from November 3 to December 1, less than thirty days, and in forty days he was in the cornfield, at work and well.

My treatment was:

Internally: Calomel, podophyllin and bilein, intestinal antiseptics (sulphocarbolates) and calcium sulphide.

Externally: *Hot, not warm,* a solution of magnesium sulphate and carbolic acid. I would have used electricity, if the patient had been able to come often. By the way, I got his neighbor later, who had the same accident, and treated him with the same results. Length of treatment, ten days.

I read your journal every time, and have taken a two years' post-graduate course with your school and still take each lesson.

W. A. Shelton.

Marceline, Mo.

A SCRAP-BOOK THERAPEUTIC GEM—BROMIDROSIS

I notice an inquiry for a remedy for bromidrosis in the current number of Clinical Medicine.

I use a formula published in *The Eclectic Medical Gleaner* for August, 1897, given by Dr. J. P. Dice of Xenia, Ohio. I clipped out the article and pasted it in my scrap book, a disreputable looking article of home manufacture, but which I would not exchange for all the books on materia medica that were ever published. It contains many valuable formulas given me by men who used their own brains to think with, instead of blindly following the deductions of modern medical teachers who seem to be employed in work-

ing out conceptions for today that they use to kindle the kitchen fire with tomorrow. For instance, note the deep science (!) of the treatment of Charles II of England, recorded on page 617 of June CLINICAL MEDICINE. These practicians were as infallible in their day and generation as the modern pundits, who, hiding under the skirts of "The Carnegie Foundation" are seeking to squelch all the medical schools of New England with the exception of Harvard and Yale, and who dub Culpeper and Paracelsus as quacks and mountebanks. Well, let them have all the rope they desire.

The treatment I give in Dr. Dice's words: "Lloyd's salicylic acid, oz. 1-2; alcohol, ozs. 4. Fill a foot-tub or bucket half full of hot water; to this add a handful of table salt, and in this salt solution (as hot as can be borne) soak the feet for twenty minutes. Then rinse them off with a dash of cold water, dry carefully with a soft towel, and with a sponge or soft cloth apply to the diseased surfaces the salicylic-acid solution. In bad cases use night and morning at first, then once a day, and diminish the frequency as the cure progresses."

I have used this formula and treatment for more than twelve years, not only in cases of bromidrosis, but in cases of sore and tender feet, and in the words of Dr. Dice, "this plan of treatment has proven a crack shot." It is advisable to put on a clean pair of socks every morning, that have been washed, boiled and ironed with a hot iron. Or they can be soaked for twelve hours in a saturated solution of boric acid, and dried.

I have used Merck's synthetic salicylic acid with good result, but Lloyd's or Merrell's from true oil of wintergreen is far preferable. I have not found any constitutional treatment except "saline laxative" if there is constipation. Only "saline laxative" has proved a habit-forming compound with me—I prefer it to soda water! If the girl mentioned on page 721 of the current number of CLINICAL MEDICINE will follow the advice here given, she will hold her place.

I have not bothered you much of late with my attentions, and this remedy as you notice is not original, and I gratefully say to Dr. Dice, "from thy judgments I have not deviated for thou hast taught me." (Psalms 119: 102). This is written in Hebrew in the letter.

JAS. R. PHELPS.

Dorchester, Mass.

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[We cannot reproduce the Hebrew, but Father Epstein vouches for it!

First, we want to say that we welcome Dr. Phelps back into our pages. We have missed him and we are sure the family have also. Few men have the gift of saying just the right thing in such a nice way as he has.

The hint regarding the treatment of bromidrosis comes at a very opportune time. Bully for the old scrap-book! We hope Dr. Phelps will delve into it again, or, better still, give us a chapter from his own personal experiences. And, by the way, who else has suggestions to offer for the treatment of bromidrosis?—ED.]

EMPHATIC AND SUBSTANTIAL PRAISE

What are you thinking about, bothering me about sending THE AMERICAN JOURNAL OF CLINICAL MEDICINE. Why, don't you *know* I want it, and don't you know where I am, and if I don't send you the $2.00, why don't you know how to draw a draft? Now, you send just the journal till you or I want to quit—I don't. Don't waste postage asking me about the subscription—send—draw—if you get no water, take the buckets off. My well is not dry yet.

W. H. BLYTHE.

Mt. Pleasant, Tex.

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[May it never get dry—nor the CLINIC either!—ED.]

THE BACKBONE MONTHLY

Some time ago we made the remark that "you want backbone—you know you do." We are of the same opinion still—also of the opinion that *The Backbone Monthly* will help you as much as anything of the kind that we know about. It is now published by The Backbone Society of Aurora, Illinois, and its editor is Mr. Thomas Dreier, former-

ly editor of The Business Philosopher and associated with Mr. Sheldon in his school of Salesmanship. He has a style that simply *jars* people into the habit of doing their own thinking, and encourages them in the earning (and spending) of their own money. Among the other gilt-edged stuff which will appear in *The Backbone Monthly* will be numerous contributions by US.

I know you'll like the *Monthly*. It's wonderfully improved already and even better things are promised. The price is to be increased to $1.00 in August but if you rush in your remittance, 50 cents will bring it for an entire year.

"THE BUNGALOW"—A SUMMER OUTING

Friends of ours who are thinking of taking a vacation this summer should investigate "The Bungalow, at Lake Morey, Fairlee, Vermont. This is situated at one of the most delightful places of which we know. There is a large and beautifully arranged cottage, or bungalow, and a group of other buildings and tents scattered around it, all situated on the shore of a lake, with a background of forest to give shade, coolness and charm. Every provision is made for the comfort of guests. There are running water, bath rooms, open fire-place, a piano, reading rooms, etc., also a tent colony for those who wish to sleep out of doors. Fishing, bathing and boating, of course. Cuisine and service the best. This is a doctor's enterprise, or, at least the enterprise of the better half of one of our highly esteemed medical friends. If you are interested address Mrs. Kenneth W. Millican, The Bungalow, Lake Morey, Fairlee, Vermont.

SANTONIN AS A CURE FOR DIABETES

An article recommending the use of santonin in diabetes mellitus, by John B. Leiberg, appeared in the June number of your journal. I would like to say in this connection, that a pill containing one-third of a grain of santonin has been on the market for at least ten years—a proprietary by a French doctor and recommended by him as a specific for diabetes.

I would also say that the administration of 1-2 grain santonin tablets, one given three times a day, absolutely cured a child, a girl of nine years of age, who was suffering from diabetes mellitus about eight years ago. Since that time, however, I have repeatedly failed by the use of santonin to relieve diabetes or influence the disease in any way. The use of santonin in diabetes has been thoroughly tested and, except in a few cases, it has been found wanting. Its influence was exerted through its effect on the nervous system and not by its anthelmintic properties. This attempt at the revival of the use of santonin in diabetes is merely history repeating itself. "One swallow does not make a summer," nor does one cure establish a specific.

GEORGE A. GRAHAM.

Kansas City, Mo.

[Dr. Eduardo J. Fernandez of La Pax, Mexico, also calls attention to this French proprietary. He writes: "The use of santonin as a remedy for diabetes is not new. I have been using for some time, and with the happiest results, a preparation made by Leprince of Paris and known as 'Sejournet's Pills,' the base of which is santonin. . . . . You will find that in 80 percent of the cases of diabetes mellitus you will get results. I call to mind a very severe and sudden case that made a marvelous cure under a few bottles of the pills."

The most interesting feature of Mr. Leiberg's article is not the fact that he took santonin, in association with other remedies, and was cured—though that is both interesting and important—but rather the establishment of the presence of a peculiar parasite in the bowel, the disappearance of this parasite following the administration of the anthelmintics, and immediately following this the disappearance of the sugar from the urine and complete recovery from all the diabetic symptoms. In other words he has apparently established a chain of "cause" and "effect," at least in his own case. This naturally leads to the inquiry whether a

similar condition, as regards the presence of intestinal parasites, may not be present in other cases of diabetes, capable of relief in a similar way.

As Dr. Graham says, santonin has been used in occasional cases of diabetes for years, and has cured some of them. Heretofore it has been assumed that it had some peculiar action upon the nervous system, though proof of such an action in diabetic cases is not forthcoming. The Leiberg article proffers a rational hypothesis for its favorable action, one that we certainly should look into and either establish or reject. If he is right, then we are in a position to use our anthelmentics intelligently, and consequently with the maximum of benefit.

We again urge members of the family to read Mr. Leiberg's article carefully. Try out his ideas carefully and give us your reports.—ED.]

DIABETES MELLITUS: ITS ETIOLOGY AND POSSIBLE CURE

I see in June number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE a letter from Mr. Leiberg, of Leaburg, Oregon, touching upon the treatment of diabetes mellitus. I have written considerably upon this disease myself and for several years have suggested that it might be an infectious disease. For example, you can take the feces from a diabetic man and inject them into the bowels of a normal man and transmit the disease to him. You can inject blood from a diabetic man into the blood of a normal man and produce diabetes. Thus I have discussed it and called it an infectious disease and not a general disease, as described in the textbooks. I found the blood too acid, a condition designated acidosis.

Considering it an infectious disease and finding the blood in a state of acidosis, I recommended the administration of potassium iodide for two purposes:

1. To overcome the acidosis of the blood which prevented the chemistry of normal blood.

2. To hold the bowel and blood in so alkaline a state that the infection would perish—it flourishing in an acid reaction.

I administered extract of pancreas at the same time, on the ground that the pancreas was suffering from pathological changes. I went so far as to consider the disease contingent upon a diseased pancreas that I announced the original discovery of the operation of transplanting the pancreas of the sheep, or some other animal, any place under the skin with the hope that it would "take" and that the new pancreas would supply the wanting pancreatic secretion in the animal economy. This was published, I am sure, in THE ALKALOIDAL CLINIC, some years ago.

Since the publication of my lecture on diabetes mellitus I have received numerous letters from doctors telling me of the splendid results obtained from the use of potassium iodide.

I have taken particular notice of the use of the "worm remedy" mentioned by Mr. Leiberg in THE AMERICAN JOURNAL OF CLINICAL MEDICINE, containing chelonin, gr. 1-6; santonin, gr. 1-10 and podophyllin, gr. 1-33.

I have nothing new to add except to repeat what I said several years ago, namely, that diabetes mellitus is an infectious disease and not a general disease; that the pathological findings were in the islands of Langerhans in the pancreas and not in the kidneys. I also laid claim to the discovery that the original treatment was the subdermal transplantation of the pancreas of some animal under the skin in order that the sufferer might not be deprived of the internal secretion of pancreatic fluid.

ARTHUR C. BELL.

Dallas, Tex.

ARSENIC SULPHIDE: A REPLY

Your final comment on my arsenic sulphide note (May CLINICAL MEDICINE, page 554) shows that I have not made myself clear on one point. "We often want to give a grain of sulphur" at a dose, when we depend on calicum sulphide, but not when we use the arsenic salt. We can shove calx sulphurata into some patients by the spoonful,

and get very little effect, because very little is absorbed. But when we give arsenic trisulphide, it is apparently all absorbed—at least all the sulphur part of it—and a comparatively minute amount is sufficient to do the work. In using the calcium salt you depend on quantity—in using the arsenic salt, on quality.

The effect of arsenic is not uniform in its different compounds. It is well known that the uncombined metal is not toxic. I have never noticed any of the symptoms of arsenic saturation after the use of the trisulphide, nor have I read of such results reported by others. However, I only give it "to effect", and the remedial effect comes before the toxic.

I should think the "reconstructive" effect of arsenic would be of decided advantage in all cases where sulphur is indicated. Whether we really get this from the sulphide, I am not prepared to state. Clinically its effect is the same as that of the calcium sulphide, when used in a similar way. Either remedy is best given in small doses for chronic conditions, and larger ones for acute conditions.

I am quite ready to modify my views if actual tests by others fail to bear me out. But until such tests are made and reported, my experience remains all the evidence there is, and I base my judgment and practice on the evidence, such as it is.

Why not try orpiment in the next bad cold in the head, you meet? I do not recommend it in diseases of the vocal organs. There is nothing like iodine for aything in the croup line. But iodine does not seem to have much effect on the nasopharyngeal mucosa. When the cold is confined to this region, arsenic sulphide is the systemic antiseptic of choice, especially in cases characterized by offensive or purulent discharge. This is not a knock at the "coryza" formulæ, nor local medication. It only means that I have had better results by substituting orpiment for iodine, in this class of cases. I give both, when both are indicated, but not both together.

C. F. Morrison.

Springdale, Wash.

[We admire a man who sticks to his opinions, providing he can give good reasons for them, as Dr. Morrison does. The clinical test must decide, and we again urge our readers to try out *both* calcium sulphide and arsenic sulphide. We think that each has its special and peculiar field.—Ed.]

IS ARSENIC SULPHIDE POISONOUS?

I see what you have to say on arsenic sulphide. In one respect it looks like Dr. Morrison is not on safe ground. Personally, I have tried arsenic sulphide granules but the effect was unsatisfactory, probably from not dose enough. I agree with you on the calcium salt if pushed.

In thinking the matter over I thought I would like to know the literature on this subject and about the only thing I can find is in the U. S. Dispensatory for 1851, Wood & Bache.

On page 1362, appendix, we read under "orpiment, King's yellow," in part: "There is reason to believe that neither the native sulphuret, nor the artificial, when prepared in the manner just mentioned and well washed, is poisonous, at least in a degree at all compatible to other arsenical compounds."

From this I would infer that arsenic sulphide native is not poisonous and when manufactured and well washed it is also non-poisonous. Under "realgar" we read, "when artificially prepared is poisonous," page 1374.

A. W. Ringer.

Cincinnati, O.

SNAKE BITE—ECHINACEA

Recently a strong-built young man, aged thirty, came hurriedly into my office for treatment for a snake bite. He was bitten about thirty minutes ago by a large copperhead, being struck by the large fangs of the snake on the naked arm about four inches above the wrist and about over the radial artery. He had corded his own arm at the elbow and the arm was swollen very much up to the cord. I at once put him on large doses of echinacea, and applied it to the whole arm. The pulse was very heavy and full.

I loosened the cord around the arm that a little of the poison and stagnated blood might return to the system. This first excited the heart to a high pressure, then followed a deathly pale, deep nausea. I straightway tightened the cord and was compelled to give stimulation, with more echinacea. I gave a two-ounce drink of whisky which rallied him from this shock. Now this cord could not remain bound around his arm too long as it completely blockaded the return blood. So we loosened the cord just a few seconds at a time, and then the battle for life began.

I soon found that it was a fact that echinacea which has been claimed by a few to control snake venom, was as worthless as a hundred other vaunted remedies. Whisky at regular drinks as the pulse demanded it, till the patient could live without it was found to he the most reliable remedy.

This was a poison wound that would have been fatal without whisky or alcoholic stimulation. I continued the use of echinacea for ten or fifteen hours that no excuse might be left, and if it has any control over snake poison, it is beyond my observation. When patient was too sick to vomit, nearly blind, with a rapidly failing heart and respiration, and this condition repeated itself, the whisky in just "dose enough" relieved the symptoms for a while till the poison was used up and was stayed.

The patient's arm was finally swollen extremely large to his body or beyond the shoulder, but now about a week since it is normal and patient is well.

In this country the majority of snake bites are non-fatal and can be treated with any remedy which may be claimed to be a cure, but in extremely dangerous bites like this one, echinacea is too slow in action, or a flat failure. Alcoholic stimulation is much better than strychnine or anything else.

If any brother doctor has any remedy better than alcohol that he knows will stand the test, let's have it. I can name about one hundred remedies for snake bites, but every remedy acts much better *with* whisky. See!!

I. N. MOYERS.

Speedwell, Tenn.

["One swallow doesn't make a summer," and one success or failure doesn't establish the therapeutic value of a remedy. Let us hear from others who have used echinacea for the treatment of snake bites. Now that we know alcohol to be a depressant rather than a stimulant we begin to doubt very much its efficiency as a "cure" for this accident.

Incidentally, one of our correspondents wrote us not long ago that the best remedy he has ever used for this condition was calx iodata. He has used it in many cases, both internally and locally, and with invariable success. Who has a better suggestion?—ED.]

A CURE OF WHAT SEEMED TO BE CANCER

Mrs. B. T., age 60, first consulted me June 7, 1909. Complained of pain in the rectum, feeling of nausea, no appetite, losing weight, diarrhea, stools thin, composed mostly of mucus, and the odor very offensive and clinging. She said that for hours after the stool the toilet-room was so offensive no one cared to use it.

Examination of the patient discovered a relaxed anus and the rectal mucosa, as far as I could see with a sigmoidoscope, was ulcerated and covered with a dirty-white substance. The vault of the vagina was injected and the uterus was fixed.

Diagnosis: carcinoma. She gave an additional history of having had piles for years but I could not find even a pile tag.

Treatment: Daily cleansing enema followed with half an ounce of glycothymoline in three and one half ounces water to be taken with the hips elevated. An intestinal-antiseptic tablet, one every two hours and with every other dose, one granule of hydrastinine. This was not given with the idea of a cure but to give relief.

She persevered in the treatment and in January of this year I found she was gaining in weight.

Starting in August I also gave her twice a week nitrate of silver douches or rather enemas with neutralizing douches. Now as

I said in January she showed some gain in weight but the rectal mucosa was about the same. I told her I did not feel I was doing right in continuing the case but there was a new remedy in the field that might do some good. I put her on chromium sulphate, grs. 4, q. i. d. At the present time the rectal mucosa is normal, with the exception of one small spot. She looks like a healthy woman and acts like one. I noticed that the stools, mucous discharges and face of the ulcers all changed to a deep green soon after starting the chromium sulphate.

I did not have a section made, as I was so sure of my diagnosis, but now I am of the opinion that the case was not a malignant one. It shows, however, the value of this drug as an intestinal antiseptic. Would it be of value in typhoid?

CLIFFORD E. HENRY.

Minneapolis, Minn.

[Dr. Henry raises an interesting question. How much of the benefit following the use of chromium sulphate is attributable to its beneficent action upon the intestinal tract, and the lessened toxemia naturally resulting? Here is a fine field for clinical investigation.—ED.]

RELAPSING TYPHOID FEVER

I have treated my typhoid-fever patients for many years on a clean-out and keep-clean basis, invariably with good results. The following case was no exception, but it presented several interesting features.

The patient was a man—a mechanic—about twenty-three years old. I was not called until well along in the second week of the disease, as shown by the temperature curve and the history, although he had had nothing but home treatment previously.

The first point of interest was a bronchitis which was so marked that it clouded the diagnosis at first. This bronchitis, showing marked sibilant and sonorous breathing, persisted until the evening temperature touched normal, when it disappeared as if by magic. In my opinion this shows that it was a direct result of the typhoid poison.

Point second: After the temperature had been normal for ten days, the patient had a relapse, during which the morning temperature did not go above 99° F.; the evening temperature, however, ran in two days to 101.6° F., stayed there about a day, gradually defervesced and was normal again in eight days.

The patient had been taking intestinal antiseptics (sulphocarbolate) tablets until the temperature came down to normal the first time and for eight days thereafter, and these were discontinued just two days before the relapse.

Query: Did this discontinuance of the antiseptic have anything to do with the second rise of temperature? Bowels had been kept open all the time.

Another point of interest to me in connection with the relapse is the following. A Widal test was made shortly after I took the case, probably the end of the second week of the disease, which showed a slow reaction, and later in the disease the reaction was absent. To my mind this shows that the proper antitoxin for combating the typhoid poison was elaborated in the blood in only small quantities and was probably very weak when auto-reinfection occurred.

As to the diagnosis of this case: The rose spots over the abdomen were very characteristic and the temperature as noted at the hospital, where he went immediately, showed the very characteristic downward step-like curve of the last weeks of typhoid.

J. LEVERETT.

Yonkers, N. Y.

[Who will volunteer to answer the doctor's question? We shall not attempt to do so; but certainly this experience indicates the wisdom of not discontinuing the intestinal antiseptic too soon.—ED.]

EXTERNAL VERSION AND FOOT PRESENTATION

In your June issue I see an article on external version and a request for a few very short articles on the subject. I desire to report one case that came under my observation.

The patient, Mrs. J., was a multipara; in violent labor from 1 a. m. to 4:30 p. m., attended by a midwife. A physician was sent for at 11 a. m. Conditions remained unchanged under the combined efforts of midwife and doctor. I was called and arrived at 4:15 p. m. I diagnosed a left vertical transverse presentation. The woman being of spare proportions, I concluded to try external version, under the influence of one of the H-M-C tablets. By gently forcing the head so as to engage at the os and the buttocks toward the stomach, just prior to each pain, I succeeded in the interval of but three pains in delivering the patient of an eight-pound girl.

In reference to footling presentations, when the membrane has not ruptured: At the moment of rupture and before another pain occurs, bring the feet down and observe in which direction the toes point. If toward the pubes, turn them in the opposite direction before another pain or two occurs so that the nape of the neck passes under the pubes, and you will invariably have as safe and as easy a termination as if there were a natural presentation. Try it.

With regard to alkaloidal therapy and CLINICAL MEDICINE I must confess that they stand without equal in the medical world. A. A. HYER.

Washington C. H., Ohio.

EXTERNAL VERSION.—CALCIUM SULPHIDE

In the June number of CLINICAL MEDICINE just received I note that you request articles on external version.

On Thanksgiving Day, 1908, I was called to see Mrs. L. at her fifth confinement. On examination I found an elbow presenting and the membranes unbroken. By gentle pressure on the elbow between pains and external manipulations over the abdomen, I managed to get a vertex presentation and delivered the woman in about three hours after my arrival. From this experience I should consider external version comparatively easy provided the membranes are not ruptured.

A few words on calcium sulphide: I have been treating a lady since last winter with a tuberculous abscess of the right lung with calcium sulphide, 1-2 grain every three hours. About a month ago she reported that her cough had entirely ceased and that there was no more sputum.

I have been an "alkaloidist" for the last ten years, and shall be one as long as I continue to be a doctor. J. G. PAXTON.

Casey, Ill.

[The doctor was fortunate in being able to effect external version in this case; it isn't always so easy. That it is worth trying is shown by the experiences of Dr. Paxton, Dr. Hyer and others who have sent us reports.

For many years calcium sulphide has had an excellent reputation in the treatment of respiratory affections. Van Renterghem recommended it in phthisis and as an expectorant in the dry coughs of the commencing catarrhs, and ever since his time it has been used for this purpose by a few of the elect, and generally with good results. This remedy certainly has a decidedly deterrent action upon those low forms of life, whatever they may be, that cause the contagious diseases of childhood. It is but rational to believe that it has a similar germicidal action upon the tubercle bacillus, and clinical experience certainly seems to support this belief. We believe that it should be used more extensively in pulmonary consumption. That it does ameliorate the cough the experience of other physicians besides that of Dr. Paxton bears testimony.—ED.]

CONFESSIONS OF A GRAYBEARD—THE "NINTH DAY" OF LYING-IN

Everytime the stork hovered over one of my client's homes for lo these many years I have been obsessed, on the installment plan, to curtail the lying-in period. That classic "Ninth Day" has pursued me with the ferocity of a ghost armed on the right side in interrogation points; and on the left side in jawbones of asses.

I see now that I was never inclined to give the "Ninth Day" a square deal. While I

was the sinker on a Pennsylvania medical fishing line the high-water mark for obstetric insurgency was a Polish patient who was up at the washtub on the second day when I made the regulation visit. In Montana an Indian squaw sometimes is taken short while *en route*. She dismounts; delivers the goods; ligates the cord; slings the papoose over her back—whereas it was just previously carried low down in front—and the pony jogs on as if nothing had happened.

Nothing much is gained by such a burst of speed. The slower-going white woman and her child are farther ahead at the end of the first year. This is the crux. Can the average white woman spare the nine days? If not, she should have been spared the ordeal. So many ideas crowd their way to the front at this point that the writer is liable to commit mistaken identity.

But this is what we started to say:

The conviction was set like a bear-trap in the mind that the lying-in period could be reduced. It was a case of conscience. The doctor is not in danger of having a baby, any more than Congress is going to reduce the tariff. At best, success would only mean a new proper name applied, in perpetuity, to the short cycle. About the time the conviction became acute the journal of our alumni association came out with an editorial which hit the bullseye: "Set them up; give the womb a chance to drain." It was plain the editor of the great periodical and the writer were traveling in the same orbit. Often, oh! how often the editorial output has been treated with scant courtesy.

Who the writer of the editorial may be ought to make a difference. The grizzly old medical bear is averse to feeding his mentality on the skim-milk diet of some green persimmon in the arena. True, the steam-power of thought ought to register as unerringly as the clinical thermometer. There is such a thing as elderly wisdom failing to strike fire. When the reader feels as if concussion of the brain was about to supervene as the result of reading medical literature, he is bound to sit up and take notice.

Iconoclasts are usually endowed with the courage of their convictions. That is what causes them to go ahead and pull against the stream; in spite of neighborhood surroundings. It makes no difference if the iconoclast is skating on thin ice, or if his enemies are saying, "Let the old fool go and he will kill somebody yet."

That series of unbroken successes came to an end. One too many had been set up. A young woman in excellent condition had the usual symptoms and the medical man started in to improve on nature. Meddlesome midwifery sought to justify itself by blaming the milk for not coming at the end of sixty hours. Mothers are usually more anxious about the milk than about the newborn baby. No matter how anxious the father may be, he is not supposed to know anything. This patient was propped up in bed on the third day and told how she would be out on the floor walking with the baby in her arms within a week.

Septic peritonitis came down like a wolf upon the fold. It may have been only a coincidence; but the canons of midwifery had been outraged and the medical man found himself withstood to the face because he was to be blamed. An uncomfortable ten days followed, but eventually the mother and child came through all right. The medical man has a few extra gray hairs and a fatter *index expurgatorius*. He went into drydock to scrape off barnacles.

Actual conditions prevailing in the parturient womb require a reasonable lying-in period. Blood contains the basis of different bodily structures. Function is selection and elaboration: surplus and nonadaptable elements must be forced out of an organ. The uterus after delivery has a function as certainly as before. It may represent a couple of pounds of bruised meat. The lochial discharge is more than the metamorphosis of hypertrophied tissue into atrophied tissues. When the process is completed a womb larger than a virgin womb remains, and the amount of lochial discharge by weight has been several pounds.

The new mother's blood contains the nutriment for the child. During nine months the placenta carried on the function which later is turned over to the mammary glands.

Retention of what was the child's nutriment in the mother's body is the exciting cause of the mammary secretion.

Conception seems to be the result of an affinity between the ovum and the spermatozoon. It is not the purpose of this article to branch out into a long-winded dissertation on the far-reaching effects of the merger accomplished by ovum and spermatozoon.

One fact born out of due season, as the result of this head-end collision between a fact and a theory, which partakes of the nature of a compensation, is this: half-grain doses of oxalic acid, every four hours, given well diluted with water, exert a marked influence for good in puerperal septicemic conditions. Later investigations have proven it to be a reliable tonic in emesis gravidarum.

J. E. F.

——, Montana.

ANTEPARTUM HEMORRHAGE

In the June number of CLINICAL MEDICINE, page 679, Dr. Cook gives us a nice little variety of obstetrical accidents: antepartum hemorrhage, postpartum hemorrhage, inverted uterus, and convulsions. As I have had experience in all of these I feel like taking my part in a little experience meeting and hope many others will join us. In order not to be tedious I will only venture on antepartum hemorrhage at this time.

More than thirty years ago I was attending Mrs. Q. who had been "wasting", considerably at times, for some ten days. When called this time I had scarcely entered the room when she asked the nurse to light the lamp as it was getting dark. I knew only too well what this meant and asked for assistance. The os being well dilated I introduced my hand and brought down the feet and delivered the body just as her "lamp" went out. My assistant arrived at this time and we completed the delivery. Baby dead. Mother also.

. It is doubtful if atropine or any other drug would have helped her. My report is from memory and I have no detailed account of the ten days' treatment, but I do know that I did not use atropine.

In another case I had the usual hemorrhage but the placenta being partly over the os, labor set in and completely controlled the hemorrhage, and I was happy; but after a couple of hours the pains ceased entirely and then such bleeding I never want to see again. I asked for help and introducing my hand began forcing open the partly dilated os. My plump little arm (I weigh more than 280 pounds) made an excellent tampon, completely controlling the hemorrhage, and it is the only tampon I have ever used that a vomiting patient cannot dislodge. After waiting patiently and comfortably for the assistant to arrive, I inquired what delayed him and learned they had not sent for him at all. Our understanding was thorough this time, and when he did arrive the os was dilated and my hand so benumbed I could not hold anything. Application of the forceps within the uterus soon made things all right. Baby dead. Mother did nicely.

In another case I had been anxiously watching about five days I was sent for hastily and on my arrival I found the baby completely born with placenta resting on its head like a cap. A couple of strong pains did the work nicely, but I claimed the credit. Baby dead. Mother did nicely.

I was called with Dr. W. and found the os well dilated and placenta completely covering it, and the hemorrhage fierce. I forced my hand through the placenta, and brought the feet down, which controlled the hemorrhage until child was delivered. Baby dead. Mother recovered nicely. .

Mrs. F., five months pregnant, had considerable hemorrhage at times for eight weeks. It became quite severe and I tamponed, using a patent packer to pack the os. Hemorrhage was controlled nicely until next morning when I was sent for and found her in labor. Vomiting had occurred and the packing was all forced out except that within the os. The protruding fetus completely controlled the hemorrhage. In the body of the placenta was my strip of gauze nicely packed, with no opening except where my patent packer entered, and as I stood there and gazed at it I wondered if it was the work of a skilled physician or a darned ignoramus.

In thirty-seven years' practice I have not yet discovered a drug that I could rely upon for antepartum hemorrhage. Treat the symptoms in each case and be exceedingly glad when it is all over.

W. V. M. TAYLOR.

McKeesport, Pa.

[In the cases which Dr. Taylor reports it is, of course, exceedingly doubtful whether atropine or any other remedy given internally would have made any difference in the final outcome. In such conditions the doctor must act and act quickly if he would save the mother's life, and he is exceedingly fortunate if he saves the life of the child. Nevertheless, atropine is undoubtedly of benefit in many cases of hemorrhage but there must be reasonable time to develop its action. We will let the members of the "family" discuss the whole problem in an ensuing number of CLINICAL MEDICINE.—ED.]

DO YOU ENJOY YOUR WORK?

"The man who doesn't enjoy his job never does it well." Dr. Richard C. Cabot makes this remark in one of his recent books. It is worth remembering. The doctor especially should put his heart into his work. Of course there are many disagreeable things which are part of his everyday duties; but in the larger sense even these tasks may be made a pleasure. There is the joy of study, of investigation, of conscious well-doing, of mastery. Make this joy yours.

A CASE OF PUERPERAL SEPTICEMIA

I have something on my mind which may be of help to the family in the treatment of puerperal septicemia, that most dreaded disease and with which every general practitioner is sure at some time to come in contact. I am still treating just such a case, but feel that I have won the battle and I would like to tell of my treatment.

Every physician knows what the disease is or will know if he ever it one to treat. This is the second one I have had in my twelve years of practice.

I was called February 23, 1910, to care for a young woman, age 19, primipara, and, as there was no other way, delivered the still-born child with forceps—and it took three hours to do it, as the os uteri had to be dilated in order to admit the introduction of the forceps. You will probably ask, Why didn't you wait until the os was sufficiently dilated before placing the forceps? Because the woman had been in labor since the Monday before the waters had broken the following Tuesday morning at 2 a. m. and the os had not dilated more than one inch from that time until Wednesday night, and my patient was growing weaker.

My assistant and I carefully prepared the patient, using every antiseptic precaution. Well, we delivered the baby, removed the placenta intact, and as there was quite a laceration of the vaginal floor, we repaired it, using sterilized catgut sutures. Then we washed the patient, using bichloride solution, placed antiseptic pads to the vulva, applied breast and abdominal binders, leaving the patient feeling quite comfortable, with a well-contracted womb. Temperature was 99°F., pulse 80, respiration 20.

I called the next day and found her feeling quite well but somewhat tired. No change in pulse or temperature. But when I saw her a couple of days later, I found the temperature 102.4° F., pulse 120, respiration 28. I thought the trouble due to the milk formation, and left, calling again the next day. I had the nurse in the meantime rub camphorated oil into the breast and had the bowels flushed out thoroughly, giving saline laxative (as the bowels had not moved freely enough) and intestinal antiseptics. Well, when I called the next day, the temperature was still rising and pulse and respiration more rapid. Lochia were nearly suppressed, with a foul-smelling odor to what discharge there was. The patient was somewhat delirious. I at once advised removal to the hospital, and gave the following treatment:

I began with 1-10 grain calomel every two hours till bowels moved freely, followed by effervescent magnesium sulphate, a teaspoonful twice a day in a glass of hot water. I pushed the intestinal antiseptics (sulpho-

carbolates) giving a tablet every three hours. I also gave calcium sulphide to saturation, and administered nuclein with the sulphide, at the same time giving echinacea in 15-drop doses every two hours. In an endeavor to reduce the high temperature I gave the Davis fever tablet (aconite, belladonna and bryonia).

Locally I used lysol as a douche every three hours, in hot water, and enemas of half-strength normal-salt solution, to which iodine had been added, twice a day. I tell you it was a severe case. The temperature, pulse and respiration kept at 104° F., 120° and 36° respectively for five days, we keeping up the fight, giving one-half strength H-M-C if the patient suffered some pain, though this was given mainly at night. I kept up this treatment for five days, as I said, when matters began to take a turn, temperature lowering, pulse more steady and not so rapid, with the respiration gradually falling into line. Of course I lengthened out the time for medicines and douche accordingly. Today my patient is out of danger and resting more comfortably. I tell you this because these cases are so hard to handle and as a rule fatal. Perhaps my mode of treatment may be of some help to others. I feel elated over my success and want others to know it.

Let the good work go on.

W. Francis Ertell.

Kalamazoo, Mich.

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[In a later letter Dr. Ertell says that he curetted the uterus, but there was absolutely no retention of placenta or membranes, so that this apparently could not have been a case of puerperal sapremia. Though, unfortunately, no bacteriological examination was made, the evidence seems to show that it was a true case of streptococcus infection, one of those cases which usually rapidly go to a fatal termination.

The doctor applied the proper principles in this case, which are: (1) to antisepticize, as nearly as possible, the point of infection, i. e., the birth-canal; (2) to clean out and "keep clean" the alimentary tract, thus reducing to a minimum the complicating possibilities from the absorption of fecal poisons, while facilitating the elimination of by-products of body katabolism; (3) the use of remedies which battle, directly or indirectly, with the specific cause, such remedies being calcium sulphide and echinacea, which combat the germ-infection, and the nuclein, which raises the resistance of the body through increase in the phagocytic power. This was right, this was logical, It is faithful carrying out of these principles which gives success. Antistreptococcus serum is worthy of trial, provided a bacteriological examination shows the presence of the specific germ.—Ed.]

DIFFICULT TWIN DELIVERY.—ECLAMPSIA.—MATERNAL IMPRESSIONS

Mrs. S. C. S., aged 26, primipara, began to vomit about midnight on August 30, 1909, which she thought to be due to her having eaten some plums the day before. She sent for me at 12 o'clock, noon, the following day, having felt some labor pains since that morning.

I found the os dilated to about the size of a silver quarter, and what seemed to be a breech presenting; besides which I felt some fingers. By the middle of the afternoon the breech was clearly outlined and a hand extended from the vulva. I repeatedly pushed back the hand, finally succeeding in making it stay back. Only one fetal heart-sound was audible about half way between the navel and the costal margin on the left side. From the way things looked, however, I told the family I thought twins probable; and this proved to be the case. The body of one was eventually born, but I could not get the aftercoming head. I therefore anesthetized the patient with chloroform and found on inserting fingers that the chin was locked over that of the second child. I managed, with considerable difficulty, to push chin and head of the second child away while the nurse made traction on the feet of the first, which was thus delivered at about 7 o'clock p. m. Two hours later the second child was born.

The children weighed about three pounds each. There were two separate cords and placentas. I was quite sure that the hand of the second child was the one which had

presented beside the breech of the first, until after the first one was born, when the bag of waters of the second child seemed to be intact. Could a hand of a child coming breech first extend some two inches in advance of the breech, or was I mistaken about the bag of waters of the second child not being ruptured? I did not give this question much thought at the time.

On noticing that the patient's limbs and face were swollen considerably on the day of labor, I elicited the fact that her urine had been somewhat scanty for a month or so. Forty-eight hours after labor a convulsion occurred. The patient was given a hypodermic injection of morphine, gr. 1-4, and pilocarpine, gr. 1-6, by Dr. Rutherford, who was called pending my arrival. When I arrived, he had the woman in a hot-pack and she was perspiring quite freely. I gave her veratrine, and later veratrine and colchicine; also 5-6 of a grain of elaterium, following convulsions. She had passed one quart of urine during the twenty-four hours preceding the convulsions.

The first specimen of the urine measured 1000 Cc., with a specific gravity 1010, and contained no albumin. Next day the quantity was not determined, but the urine contained plenty of albumin, and had a specific gravity of 1020. A third specimen, a day or two later, contained no albumin. I have forgotten the specific gravity, but it was good.

Both children were females and each had a rudimentary fifth finger attached by a pedicle to the little finger. The mother had a fifth finger on one hand when born but which was amputated. The first child was born dead. The second one was living and doing quite well, on Jan. 24. The mother made a complete recovery.

H. N. Crandall.

West Springfield, Pa.

[Dr. Crandall's experience is certainly interesting, and he is to be congratulated that the patient reacted so promptly to his treatment for the eclampsia.

The occurrence of the rudimentary fingers in both infants brings up the question of maternal impressions, which have been denied so often and for which, nevertheless, so frequently almost conclusive support is seen. The present writer remembers a patient who nursed her dying father while she was in the fourth month of pregnancy. One finger of the father's right hand had been amputated and the child was born with only four fingers on the right hand, two of them being webbed. Maternal impression? Who can tell?—Ed.]

ANENT EXPERT TESTIMONY

In the trial of Dr. Hyde, in Kansas City, charged with having administered poisons with murderous intent and caused the death of Thomas Swope, a millionaire, in whose will he was interested, nearly two hundred men were questioned before a jury was chosen to try the case. Many of those who were examined to determine their fitness to serve as jurors stated that they would not convict on circumstantial evidence alone, which is not surprising, but what is of far greater interest, quite a number expressed themselves as having no confidence in the testimony of expert medical witnesses. Some of these cited the alienists in the Thaw case as the cause of their antipathy for testimony of a medico-scientific nature. In a case tried in Kansas City recently the murderer escaped punishment on the insanity plea, largely based on the testimony of physicians who qualified as experts, and within a few weeks the defendant was at liberty, having been discharged as cured.

It is to the shame of the medical profession that men who can qualify as experts can be found who will testify for either side of a case, their services going to whoever sees them first and offers the most money. Expert testimony is getting to be a joke. The sad part of it is that this condition of affairs has not been brought about by recent graduates, advertising fakers or medical outcasts, but by those who have reached prominence through their skill and learning—shining lights of the profession—who dispense their conscience and honor along with their services.

S. H. Snow.

Dalhart, Tex.

[It isn't so easy to settle this problem—that's the trouble. Some time our whole medicolegal procedure may be changed, the state providing *paid* experts—but!—Ed.]

THE TREATMENT OF GASTROENTERITIS IN CHILDREN BY THE USE OF BACILLUS BULGARICUS

It having been definitely proven that the bacillus bulgaricus becomes acclimated in the intestine after having withstood the action of the stomach, and that it destroys and prevents the multiplication of other bacteria, it would logically follow that the brilliant results obtained in the treatment of intestinal putrefaction and fermentation in adults would be duplicated by the use of this treatment in the gastrointestinal diseases of children, and such has proven to be the case.

Every pediatrician has his own form of treatment, his own special modifications of milk, and his own methods of producing these modifications, but in a series of analyses I have definitely shown that it is impossible, practically, for any two physicians using different milk supplies to prepare a modified milk within 10 percent of any definite formula, owing to the fact that there is an enormous variation in the percentages of the various constituents of the milk as delivered by the various dealers, produced by the variation in the percentages of these constituents in the milk from different cows and in the same cow at different times. As a result, there are untold formulas for modified milk, and numberless highly lauded modifications.

But when we finally come down to the treatment of the case we find that we have another unknown factor to deal with, and that is the child. A method that works ideally with four or five children will fail utterly with the next, and we are unable to determine beforehand what our results will be; and we all know too well that our experimenting consumes much valuable time, and often adds to the severity of the condition to such an extent that the little patient may even die before we have arrived at a proper mixture or modification of the milk that will agree with it.

All authorities of experience agree that whatever the after-treatment, the essential thing is to clear out, as far as possible, the obnoxious bacteria present in the intestine, and then to give no food during the next twenty-four hours. I have followed this method for years with considerable success—with greater success, in fact, than with any other method. The after-treatment, of course, varied with each case. For some time during the past year and a half I have been using the bacillus bulgaricus, giving it in a suspension in water during the twenty-four hours in which the child was given no food, the first twenty-four hours immediately following the administration of a cathartic. This, to me, is a very rational procedure, as we know the bacteria present in the intestine are causing the trouble, and we know (at least most authorities are agreed) that, unlike typhoid bacilli in typhoid fever, these bacteria are not present in the blood and in the tissues but are localized only in the intestine. We therefore may with advantage use the bacillus bulgaricus to replace them.

Many authorities advocate the use of buttermilk, but few if any of them use the bacillus bulgaricus, or they do not specify. I have had great trouble, however, in getting children to take buttermilk, and while I can see that there would be an advantage in this, especially bacillus-bulgaricus buttermilk, because of the exceedingly fine division of the curd, yet we can accomplish the same results either by giving the tablets suspended in water or by adding one or two crushed tablets just before each feeding.

It must be borne in mind that the milk must not be heated up much after the tablets have been added. In this way we are able to utilize the efficiency of the bacillus bulgaricus—of course, not to the extent that would be possible if we fed buttermilk, because we do not have nearly as many germs. It will therefore require somewhat longer treatment before we have the organism thoroughly established in the intestine. Ordinarily, I believe, this would take not longer than from ten to twelve days with an infant.

It is highly essential that the bacillus bulgaricus be used and not the common lactic-acid bacteria, because they are of no value. They merely sour the milk, and are destroyed in the intestines. As it is a somewhat difficult procedure to prepare bacillus-bulgaricus buttermilk, I have always used merely the tablets. It is essential that there be no yeast or other alcohol-producing ferments in the tablet. Otherwise we are liable to set up another condition practically as bad as our original disease.

My experience has not been sufficient to warrant me in stating positively the efficiency of this method in the majority of cases, but I have treated some cases that were very severe —that had failed to react to antitoxin—and by thoroughly cleansing out the bowel, giving no food for twenty-four hours (children receive nothing during this period except water with bacillus-bulgaricus tablets) and gradually returning to the normal modification of milk, beginning with a very low dilution, I have so far had practically no trouble.

J. F. Biehn.

Chicago, Ill.

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[In our galactenzyme tablets the physician can be assured that he is getting the *real* Bulgarian germ. Upon this product we have concentrated a great deal of very earnest work. Once, after placing it on the market, we withdrew it from sale, because we had difficulty in maintaining the purity of strain of this microorganism. It does not seem to be generally appreciated, by the way, that most of the lactic-acid (or buttermilk) tablets on the market contain no bacillus bulgaricus whatsoever. We exercise the maximum of care in the preparation of galactenzyme and as a result we have a product in which the Bulgarian germ is active and plentiful and which is so combined as to make a buttermilk which is smooth, creamy, free from curds and palatable.—Ed.]

THE BACKGROUND OF MEDICAL WORK

In the review department of this number of Clinical Medicine we print an appreciation of a little book by Dr. Richard C. Cabot of Boston. Among the many fine and true passages one has struck us as particularly true and worthy of being brought to the consciousnesss of as many physicians as possible. We print the passage literally; it needs no comment or elaboration. Dr. Cabot's book is entitled "Social Service and the Art of Healing." On page 17 he says:

"We physicians are prone to scoff at the habit of taking a drug for a symptom like headache, without looking deeper to find the underlying disorder of which this headache is a symptom. We point out very truly that only by finding and removing the cause of this headache—an eyestrain, perhaps, or a stomach trouble—can its recurrence be prevented and other disorders nipped in the bud. This is as it should be, but we need to carry the same habit further. Why should we not push on, and find out why this patient has the stomach trouble? The headache is only a symptom of stomach trouble we say. Yes, but the stomach trouble itself may be only a symptom of chronic worry, and the worry a symptom of deficient income. The patient's expenses turn out to be a trifle larger than his wages, and one of the many bad results of this fact is the worry that causes the stomach trouble, which in turn cause the headache.

"If we are really to treat that patient, and not merely smother one of his symptoms under a dose of medicine, we must push on into the background of his case and see what disease in the body politic—perhaps in the organization of industry—is behind his individual suffering. Not that we should lose sight of him. On the contrary, we can do much better for him if, instead of stopping at the first stage, headache; or at the second stage, the stomach trouble; or even at the third, worry, we go into the matter of his income and outgo, and see if the two ends can't be made to meet. I have heard physicians giving advice to patients not to worry, advice that would be laughable if it were not so pathetic: 'Just stop worrying' (you might just as well say stop breathing), 'and take a long rest. Avoid all mental and physical strain.' What his wife and children are to do meantime never occurs to this type

of physician. The wife and children are in the background, out of range of his vision, and so for him they play no part in the case."

TECHNIC OF THE LEIBERG TREATMENT OF DIABETES

Dr. Carrie E. Leiberg, whose husband developed the method of treating diabetes which proved so effective in his own case, asks us, in response to the many inquiries which have reached her and Mr. Leiberg, to give the technic of the treatment, as they have employed it. It is as follows:

The best results were obtained in Mr. Leiberg's case by taking half a grain of codeine three times a day till five doses had been taken, which brings the fifth dose at noon the second day. Luncheon is omitted, and about an hour after the fifth dose a full dose of the worm remover is administered, followed the next morning by a generous dose of saline laxative.

Dr. Leiberg writes: "It is wonderful to see the change in Mr. Leiberg since his recovery from what we both feared was a fatal affection. He is now robust, strong, with a fine appetite and in perfect health. It is so good that we want everyone else thus suffering to have the chance to try what cured him, and hope that the same happy result may follow."

AN IMPORTANT MEETING AT ST. PETERSBURG

The Fifth International Congress of Obstetrics and Gynecology, which occurs at St. Petersburg, Russia, in September, will undoubtedly surpass in attendance and interest all previous meetings of this body. It will be held at the Imperial Institute of Midwifery and Gynecology, No. 3 University line, Vasilievsky Ostroff. A feature of the occasion is an exhibition which is to be held in connection with the congress and to which the Committee of Organization is inviting exhibits from all parts of the world. Following are some of the things which will be displayed at this exhibition: Surgical instruments, modern and ancient; objects pertaining to the equipment of laboratories, operating and lying-in rooms, etc.; objects relating to the nursing of new-born infants; plans of obstetrical clinics and gynecological sections of hospitals; objects for the study of midwifery and gynecology; portraits of medical men who have distinguished themselves in the history of midwifery and gynecology; books on gynecology and midwifery; pharmaceutical preparations, etc. Exhibits should be delivered at their destination not later than September 1, addressed as follows: "For the Exhibition in connection with the Fifth International Congress of Obstetrics and Gynecology, No. 3 University line, Vasilievsky Ostroff, St. Petersburg." The committee of organization expresses the hope that its invitation will be favorably received by both institutions and individuals and that the exhibition will afford an interesting object-lesson on the modern development of the technical, practical and scientific branches of the profession.

IVY POISON

Here's a hint just received from a friend who has recently had an experience with ivy poison. Inasmuch as he suffers from it nearly every year, and this is the first thing that has really "knocked" the thing from the very start, I believe it's worth giving to the "family." He used a solution of bromine in oil—cottonseed oil, olive oil or vaseline will do. Strength, 10 to 20 minims to the ounce. Try it, brothers.

DR. HARROWER'S NEW BOOK

We wish to call special attention to the advertisement of Dr. Harrower's forthcoming "Essays on Laboratory Diagnosis" which will be found elsewhere in this number. Those of our readers who have had an opportunity to read the doctor's articles, some of which have appeared in CLINICAL MEDICINE, will surely want to read his larger work. It is not a text-book, but a series of familiar "talks" on matters of vital and practical interest to every general practician. The chapter on Acidemia is alone worth the price, which is $2.00.

By the way, have you seen Harrower's magazine, *Physiologic Therapeutics*? It is just as readable as they make them—and as practical as it is readable. Better send for a copy, or better, send a dollar for a year's subscription. Address Dr. Henry R. Harrower, Park Ridge, Ill

BARBER'S ITCH

In "Barber's Itch" and many other fungus-caused skin lesions, good results will obtain under the following:

Clean out each follicle or pustule with a pledget of cotton, twisted onto a wooden toothpick point, soaked with hydrogen peroxide; dry with cotton, then apply in the same manner a 1 to 500 biniodide of mercury solution. Let this dry, and apply a cooling ointment, something that doesn't melt at body temperature. One application usually does this work.

C. D. W. Colby.

Dillsboro, N. C.

UMBILICAL HEMORRHAGE

I notice an article in your journal, under date of July, 1910, page 809, in which it is stated that "umbilical bleeding in infants after the cord drops off means death."

I would like to report a case that would seem very interesting after reading that:

Child, born December 4, 1909, female, white, weight 8 pounds and apparently in good health. It did well after delivery and the cord dropped off on the eighth day; no bleeding at that time. I was called hurriedly twenty-four hours later, and found the band stained with blood. I used a weak solution of silver nitrate, thinking the hemorrhage would cease in a short while. Getting no result from this I next tried pressure, then adrenalin chloride and numerous other things. The bleeding got worse in spite of everything I did.

Being a young man and having worked for three hours with no results, I asked for consultation. When my consultant arrived he advised me to let the child alone as all the cases died. Believing there could be but one result, I thought I would try some experiments, so I put a purse-string suture entirely around the bleeding area; as soon as it was tied all bleeding stopped. This gave me time to study what to do next, for I knew the skin would slough, which it did five days later and the bleeding immediately started again. Now I brought into use every known remedy with no result.

At last almost in despair, I made a ball out of cotton (size of a walnut), and placed it over the bleeding point, then passed a strip of adhesive plaster 2 inches wide entirely around the body, real tight. This by means of constant pressure stopped all the bleeding in a short time. This dressing was allowed to stay on for six days. There was never any bleeding after that. The child is now seven months old and in good health except for an occasional attack of diarrhea, which is not unusual this hot weather.

A. H. Hoge.

Bluefield, W. Va.

THE "SECRET" OF HIS SUCCESS

I wish to thank you for your assistance to me in years gone by. In the year 1903, I received a copy of Clinical Medicine. It was good cheer from the beginning and an ever helpful friend in the time of need. One of my novitiate productions on medical subjects, which had been refused by another journal, was published in Clinical Medicine. Now the tide has changed. Some of my articles have been printed in the so-called greater journals and freely abstracted and quoted editorially. I should say further that the same journals are constantly soliciting articles from me.

I now enjoy, I believe, one of the largest and most lucrative general practices in western Pennsylvania. To what do I attribute my success? Without doubt, or mental reservation, I unhesitatingly say to The American Journal of Clinical Medicine and strict adherence to alkaloidal principles.

Dr. M. Forest Dutton.

Carnegie, Pa.

CLINICAL MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

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Alfred S. Burdick, A. B., M. D.

PART III—LESSON ELEVEN

MEASLES AND GERMAN MEASLES

THE DIAGNOSIS OF MEASLES

The incubation period of this acute infectious disease is from ten to twelve days. The eruption usually appears on the third day, after the initial symptoms develop. These are preferably fever, and catarrhal symptoms affecting the eyes, nose and respiratory tracts; there is a cough and a watery discharge from the respiratory mucous membrane and eyes.

Although this is one of the acute infectious diseases, and one of the most characteristic infections, the causative agent is as yet unknown. Measles cannot be communicated to any of the lower animals—even monkeys are immune. No microorganism has ever been found in a sufficient number of cases, by competent observers, to suggest even that it is the causative agent. Hektoen has proven by inoculation of human beings that the specific agent resides in the blood, but what this specific agent is we as yet do not know.

Measles a Deadly Disease.—The mortality of this disease in the century of 1900 was 12,866; whereas the mortality, during the same period, from scarlet-fever was 6,333. This fact, that measles has twice the death-record of scarlet-fever, usually is not appreciated by the profession or the laity. The cause of this mortality is principally the complications: bronchitis, pneumonia, mastoiditis and meningitis. The greatest mortality occurs in infants under one year of age, averaging 152.8 per 100,000. After the age of five the mortality is greatly reduced, the average under five being 106.5, and from five to fourteen years, 14.4.

The disease is somewhat more fatal among the colored population than among native whites, and about twice as many deaths occur in the city as in the rural districts. The greatest mortality occurs during the months of February, March, April and May, the least during the summer and autumn months, owing to the fact that during the spring months bronchitis, pneumonia, diphtheria, etc., caused by external influences, comprise the complications.

Communicability.—The disease is communicable from the very onset of the attack, the infectious agent being present in the bronchial and nasal secretions as well as in the superficial epithelium from the surface of the body after the eruption has developed. The infection persists about the patient for about three weeks from the first appearance of the eruption. The infectious material is not so tenacious of vitality as is that of

smallpox and scarlet-fever, and is usually not so frequently communicated by the third person.

Prognosis.—Measles is a dangerous disease, probably the most dangerous for a child under five years of age. This is a fact which parents should understand. Teething children who have measles usually die. The older the child the less likely for it to acquire the infection and the less likely it is to die.

Two attacks of measles are rare, more so than a second attack of scarlet-fever and smallpox. The incidence of infection is practically 100 percent. In other words every one exposed gets the disease. One attack, however, protects and as many have mild attacks that may be overlooked, it is supposed that a greater number are immune than is really the case.

German Measles or Rubella is a distinct specific disease. An attack of German measles does not protect from the more dangerous disease, real measles. Complications are rare. The incubation period is somewhat long. In general, this is not at all a dangerous disease.

Blood Findings.—In case the character of the eruption leaves one in doubt as to whether we have scarlet-fever or measles the diagnosis may be made by a blood examination, owing to the fact that in the eruptive stage of measles we have a *decrease* in the number of leukocytes. They average about 2,500 per cubic millimeter, whereas in scarlet-fever we always have leukocytosis, with neutrophilic polynuclear leukocytes, averaging about 25,000 to 30,000 to the cubic millimeter. A leukocytosis of more than 12,000 count, without a complicating bronchitis, excludes measles and makes scarlatina probable.

Measles is probably one of the greatest factors in preparing the individual for pulmonary tuberculosis. This danger should always be kept in mind, and if a victim of measles has what appears to be a persistent bronchial catarrh after apparent recovery, tuberculosis should immediately be suspected and a diagnosis made as soon as possible, by the tuberculin reaction if physical signs fail to show evidence of the disease, and by an examination of the sputum for tubercle bacilli.

J. F. Biehn.

Chicago, Ill.

MEASLES AND ITS TREATMENT

The Prophylaxis of Measles presents special difficulties, owing to its extreme infectiousness before the symptoms are characteristic. Personal intercourse, especially in schools, is the main factor in disseminating disease. It is only by dealing with the early cases that the spread of an epidemic in a susceptible population can be controlled. The slight importance which the public is disposed to attach to measles creates a great difficulty.

Much difference of opinion as to the value of compulsory notification exists among medical officers of health. It is argued that the fact that many cases are never seen by medical men must greatly diminish the good results to be expected from notification, and, further, that the want of means to isolate patients and to keep under observation susceptible children who have been exposed to infection must prevent the application of any effectual measure by public-health officers.

On the other hand, the receipt of notification would be the best guide to a public-health officer in deciding whether infant-schools should be closed. In face of a commencing epidemic such a step seems certainly desirable, not only because infant-schools may be assumed to contain a large proportion of susceptible children, but also because the mortality in the earlier years of life is much higher than among elder children. Further, early knowledge of an epidemic enables public-health authorities to give parents good advice to which they may be disposed after a time to give ear, and also to supply school authorities the names of houses or localities in which cases have occurred, so that children from these places may be excluded from the schools, as they should be in case of an epidemic.

The treatment of measles should be preventive, hygienic and therapeutic.

Preventive Treatment consists, as I have already intimated, in the prompt isolation of

the patient on the first occurrence of the catarrhal symptoms, thorough disinfection of the apartment and of all clothing, and the application of antiseptics to the body of the patient in the form of ointments or antiseptic baths.

In case of known exposure the patient should be isolated on the appearance of the early symptoms either by sending the well children from home or by removing the patient to a different room in the house. The attendant should not mingle with the other members of the household without first changing garments and washing the face, hands and head with some antiseptic solution. All discharges should be at once disinfected and soiled clothing placed in some antiseptic solution and then thoroughly boiled.

During the illness antiseptic solutions or unguents may be applied directly to the body of the patient two or three times daily, thus preventing the diffusion of the poisons. After recovery the patient should receive a warm bath before mingling with the other members of the family. The room should be thoroughly fumigated and all playthings handled by the patient burned.

Soothing and Healing Sponge-bath: An excellent solution with which to bathe the patient during the course of the illness (and not only in measles but during every stage of all eruptive fevers) is made as follows:

Into one quart of water which has just been boiled put 2 ounces of magnesium sulphate, thoroughly dissolve the salt by stirring, then add 10 minims of carbolic acid. The addition of 20 grains of tartaric acid is desirable and markedly enhances the cooling, soothing effect of the solution upon the skin.

As soon as the diagnosis of measles has been made, the patient should be put to bed. As immediate measures the mouth, nostrils and fauces are then rinsed, sprayed or gargled with a mentholated alkaline antiseptic, while the ears are carefully syringed with a warm boric-acid solution and then 2 minims of camphomenthol and liquid petrolatum are dropped into the canal.

The Hygienic Treatment is of great importance in measles. The patient should be placed in a large ventilated apartment, which should be shaded from bright light but not completely darkened, and the temperature should be uniform. The covering should be light and comfortable, and an abundance of fresh water given when the patient is thirsty. It is a mistake too frequently made to bundle a child in heavy blankets and give nothing but hot drinks.

When the eruption is tardy in making its appearance the body should be bathed with a warm solution of magnesium sulphate (as described above), and an occasional drink of hot lemonade may also be useful. But to cover a patient almost to suffocation and give nothing but hot drinks adds greatly to the discomforts of a child and accomplishes little good.

Little food is required, especially during the first few days, and that which is given should be simple and easily digested. The patient should be placed in bed at the onset of catarrhal symptoms, as I have said, and should remain there until the entire disappearance of the eruption.

The Prevention of Complications is the most important part of the treatment. I have already spoken of the two main elements, namely, cleanliness and ventilation. The hygienic treatment is of great importance in preventing complications.

Thus, *bronchopneumonia*, for instance, undoubtedly is communicable, and it is undesirable to nurse a child suffering from this complication in the same room with others or to employ for them the same drinking utensils. Since the microbes associated with bronchopneumonia and lobar pneumonia are found to be present in the mouth in more than half the cases of measles, the faithful employment of antiseptic mouth washes, as indicated above, has been attended by excellent results.

All precautions designed to prevent secondary infection of the respiratory system should be carried out with particular care in children in whom, by reason of their tender age (six months to six years) or because they are the subjects of rickets or tuberculosis, are especially liable to respiratory complications of a severe type. Candler believes, notwithstanding germ-diseases are called self-

limited, and are so if left to themselves, that the doctor often is able to check the progress of these infectious diseases. He says that in measles the doctor undoubtedly can do this; moreover, he can see to it that complications are prevented and serious sequelæ avoided. Measles accompanied by pneumonia proves fatal. But pneumonia should not be allowed to occur.

Otitis as a complication of measles causes many cases of deafness. Inflammation of the ear—to quote Candler once more—need not develop. The catarrhal angina which always exists in this connection requires attention, most certainly, and the microorganism might just as well be destroyed as left to do harakiri.

Diarrhea, as liable to occur, should be borne in mind, especially in epidemics in which this complication is frequent, or in hot weather, or in individuals disposed to intestinal catarrh.

The diet, under these conditions, should, therefore, be very simple and watched with care. In a robust child a diet of milk and gruel is the best; in weakly children, however, it may be desirable to give, from the first, eggs, meat-juice, and perhaps small quantities of wine or brandy. If the child suffers intensely from thirst, it may be allowed to partake freely of bland fluids, such as water flavored with lemon or orange juice or containing one or two percent of phosphoric acid and a very little sweetening.

Systemic Antiseptics.—The more pronounced the infection, the more need for the systemic antiseptics, and the most important of these is calcium sulphide. Medication with the latter should be begun early and the patient fully saturated with it.

Early in the disease, also, calomel and soda should be given, or calomel, podophyllin and bilein, followed by a saline laxative. After the bowels have moved freely, the patient should be given a warm enema of saline solution, or better still, a mild alkaline antiseptic.

Until the rash is pronounced, quinine arsenate is an excellent remedy; this, however, may be discontinued when the fever rises and the rash appears, aconitine or the defervescent granules being given in its place to control the temperature.

Nervous Symptoms, if accompanied by high fever, restlessness and slight delirium, should be treated by the applications of cold compresses, an ice-bag to the head, or even cold affusions, the patient being kept only lightly covered.

Dawson Williams is highly in favor of hydrotherapeutic measures to control the nervous complications. He says that *often sleeep may be induced* by applying a cold ice compress to the trunk, or in adults by a pack to the limbs. Much relief is often afforded by rapid washing of the whole body with water, to which may be added some vinegar.

When the cerebral symptoms are more severe, especially when there is *high delirium* with rapid pulse and flushed face, the best treatment seems to be hydrotherapeutic, consisting either of cold or cool packs or of a short lukewarm bath (90° to 96° F.). A cold affusion to the head during the bath, or at other times, will increase its calming effects. If necessary, such baths may be repeated several times a day, but the temperature, as a rule, should not be below 82° F. They will be found to exercise considerable influence upon the fever-temperature in children.

Prostration need not be considered a contraindication of hydropathic treatment, which on the whole is best applied by the use of packs, but not necessarily of cold water. If the depressing effect of the packs is likely to be excessive, this may be diminished by adding brandy to the water from which the cloths are wrung.

Every case must be treated upon its own merits, and it is prudent for the medical attendant himself to watch the effects of the hydropathic treatment, at any rate on the first few occasions of its applications.

In severe cases, with a *continuance of convulsions*, the action of the bath treatment or of the cold bath is uncertain. Sometimes it appears to determine a fresh accession of convulsions, but before abandoning it, in serious cases it is desirable to try the effects of cold affusions to the head. When there is great congestion of the face, pointing to

general cerebral congestion, the application of leeches to the temples or over the mastoid, may give relief, but before trying them it might be well to try the effect of cold affusions to the head, the trunk and limbs being wrapped up in a blanket.

The bromides with gelseminine or hyoscyamine may act well to control the extreme nervous symptoms. Severe headaches may be relieved by the same means, or by small doses of phenacetin. *Constipation*, which frequently attends the cerebral symptoms, should be treated by copious cool enemas, with or without the addition of castor oil. When relief has been obtained by hydriatric measures, the packs or baths may be repeated at longer intervals, and their use may be associated with certain antipyretic drugs. The arsenate of quinine is here a good remedy to give. When *diarrhea* is present, the sulphocarbolates are of great value.

It should have been previously mentioned that small doses of chloral may be of use when there is much excitement, irritability and loss of sleep at the commencement of the disease, but if there be signs of weakness of the heart, this drug should be given with care or even avoided altogether. The same remark applies to phenacetin.

In the typhoid and asthenic forms hydrotherapy is not contraindicated, but the treatments should be given with discrimination. Henoch recommends hot baths or mustard baths with simultaneous cold affusions to the head.

In serious cases, with marked heart failure, give strychnine, digitalin, alcohol, or camphor dissolved in oil, in the proportion of 1 in 10, or for children under three years, 1 in 20. In this way from 1-3 to 2-3 or 3-4 of a grain can be given to a child of the age named. The hypodermic injection of caffeine, under similiar circumstances, may also give good results.

Itching of the skin, which sometimes is very distressing, may be relieved by rubbing with carbolized petrolatum.

During *desquamation* warm baths should be given, taking special precautions against taking cold. One or two baths with soap and water should be given at the end of convalescence, before the patient returns to his associates.

Epistaxis does not call for special treatment except when very copious and if continuous. When not severe, nosebleed generally will be readily stopped by the injection of hot water. If inspection shows that the bleeding comes from the front of the nose, the anterior nostril may be plugged with antiseptic wool smeared with some antiseptic ointment, or adrenalin solution may be applied. The posterior nares ought only to be plugged as a last resort, as the plugs quickly become extremely foul and thus may induce a severe pharyngitis or even set up acute otitis media.

Laryngitis, if severe, may be treated by frequent short inhalations of steam, or by the pulverization of a 1-percent solution of boric acid or sodium chloride; the application of an ice-bag to the front of the neck also is effective. The patient should be encouraged *to check the cough*, and in this he will be assisted by sucking lozenges containing a minute quantity of morphine or codeine. Almost always, however, a few doses of calx iodata will control the cough, and whenever bronchial symptoms develop it is well to fill the room with vapors by heating on the stove or a small lamp a cup containing boiling water and some oil of eucalyptus and turpentine, a few drops each. The medicated steam serves to control the bronchial symptoms very well indeed.

Laryngismus Stridulus, if this develops, will be relieved by very hot compresses applied every ten or fifteen minutes until the skin is decidedly red. Sometimes, in young children, much relief is obtained by the application of one or two leeches above the manubrium sterni.

Bronchitis or Bronchopneumonia must be treated upon the general principles which guide the management of those disorders when they occur independently of measles.

Otitis, as a complication, as I have said before, should, and mostly can, be prevented.

In addition to the use of the antiseptic mouth washes and gargles already mentioned, the nose and nasal pharynx should be

cleansed with a warm solution of boric acid or borax introduced into the nose by means of a coarse spray or by the gentle use of a syringe. This should be followed by the application of an antiseptic ointment with a camelshair pencil. The child, if old enough, should be encouraged to blow its nose. In younger children and in all patients in whom deafness is present the use of a Politzer bag, which clears the nose and nasal pharynx through the orifice of the eustachian tubes, has been recommended, but this seems open to the objection that infective material would thus be forced into the middle ear.

The ears themselves should be carefully syringed with warm boric-acid solution and then 2 minims of camphomenthol and petrolatum dropped into the canal.

The otitis, when once established, ordinarily yields promptly to heat and instillation of an oil solution of aristol. If there is great pain in the ear it may be relieved by the instillation of a few drops of a warm aqueous solution of cocaine and atropine, of 2 or 3 percent strength.

If pain or deafness persists, or if inspection of the tympanic membrane shows marked congestion, puncture may give relief; and this operation certainly ought not to be delayed if pus is found to bulge the membrane forward. The wound made by the knife heals quickly.

In some cases inflammation of the lymphatic glands below the ear may be associated with ear disease. When the ear itself has been properly treated, belladonna fomentations over these enlarged glands will assist in preventing suppuration.

After the subsidence of the acute inflammatory disturbance, politzerizing and attention to the nasal pharynx are called for if deafness persists. Otorrhea has also been treated successfully by insufflation of powdered boric acid, although this treatment is becoming more or less obsolete nowadays.

Renal Complications. — Occasionally renal action is deficient, even the daily saline laxative (which should always be given) failing to promote a free flow of urine. Barley water should then be taken *ad libitum*, and 1-3 grain of barosmin given every three hours. Excessive urination with signs of renal irritation will call for arbutin, 1-3 to 1 grain, at similar intervals.

Convalescence.—Owing to the bronchitis and the involvement of the gastrointestinal mucous membrane which accompanies this disease, the greatest care should be taken during convalescence that the patient be not exposed to sudden changes of temperature or draughts. The patient should be sponged daily with cool water and thoroughly dried, so that the functional activity of the skin may be maintained. It should be insisted upon that flannel be worn, however light it may be in weight; if this irritates the skin a fine linen garment may be worn beneath. Especially should the chest, abdomen and feet be protected against cold.

Just as in scarlet-fever, the greatest precaution must be taken during convalescence to prevent renal congestion. So in measles a pulmonary disease may subsequently terminate fatally a case neglected during convalescence in one who is constitutionally weak.

It is not advisable, as a routine measure, to recommend change of air, especially in the winter, until three or four weeks at least after the disappearance of the rash.

Tonics are essential, the arsenates of quinine, iron and strychnine being the best for general use.

George F. Butler.

Chicago, Ill.

ROETHELN, OR GERMAN MEASLES

I wonder how many cases of German measles our people really see in the course of the year? We never have reports upon it, never are asked to aid any of the brethren with unusual or puzzling cases. Does it now exist in America? The one place we are sure to find it is in the textbooks. They tell us that it was long considered a hybrid of measles and scarlet-fever, and it was described from that idea rather than from nature. But now it ranks as a distinct disease, the fourth to be differentiated in that exanthematous group that crossed into Europe with the Saracens at Gibraltar and

has since fulfilled so large a part in keeping the world from being overpopulated.

Symptomatology.—Roetheln is highly contagious, spreads rapidly, is not protected against by measles or scarlet-fever. It has a long incubation-period of two weeks or more. The onset resembles that of measles, influenza and like conditions, i. e., chilly sensations, pain in the back, legs and head, as of smallpox; a spotted red eruption in the throat like that of scarlet-fever.

The eruption may begin at once on the face, rapidly passing down over the entire body. It resembles measles more than anything else, but while the latter reaches its acme all over the body at the same time, the rash of measles has begun to fade on the face before it has come to its height lower down. The other symptoms, rash and desquamation, otherwise closely resemble measles in milder form. Sometimes the rash is like that in scarlatina.

The superficial lymphatic glands in the neck and other localities generally are swollen and inflamed. Some epidemics are graver, having albuminuria, inflammation of the joints, pneumonia, and intestinal attacks as complications or sequences.

Diagnosis.—This is easy enough when attention is called to the possibility of a case in hand being this malady. There may be one or more other infections in this remarkable group of erruptive fevers.

Dukes disconnects the scarlatina-like cases and ranks them as a "fourth disease," but observations so far are not conclusive. I have attended families of children who apparently had several repetitions of "measles," which later were assigned to "erythema," a term that has little meaning in modern parlance.

The Treatment should be that of the exanthemata in general. Give calomel, 1 centigram every half hour for six doses, followed by a saline laxative—enough to really empty the bowels; and see to it that the latter are flushed every day. Note whether the renal elimination is unimpaired, and if it is deficient, give diuretics—caffeine being one of the best. Follow with sodium sulphocarbolate, enough to disinfect the alimentary canal and to remove all abnormal odor from the stools. Saturate the patient with calcium sulphide as rapidly as possible, and keep him saturated. Give full doses of nuclein solution to encourage the phagocytes. Control the fever by the dosimetric triad or the defervescent compound, as may be indicated.

Retrocedent eruptions demand atropine; pain in the inflamed glands calls for cicutine hydrobromide; nervousness or nervous symptoms are relieved by zinc or caffeine valerianate; insomnia, narceine; cough, by codeine and emetine.

During convalescence the stomach and bowels need a good bracing tonic that will favor the establishment of normal digestive secretions, and this need is admirably filled by xanthoxylin.

The Diet throughout should be unstimulating; fluid, given at three or four-hour intervals, and in 2 to 4-ounce portions, according to age, choice being among milk, buttermilk, junket, peptonized milk, clear soups, and barley, rice or oatmeal water. A little coffee if needed, besides a daily 4-ounce portion of fresh fruit juice. Give plenty of water to keep the toxins flushed out of the system.

Hygiene.—Have the personal and domestic hygiene perfected—for even this mild complaint may take on malignancy under the influence of foul air, absence of sunlight, bad food, and of general sanitary neglect. Sponging with antiseptic solutions should be made several times every day. In cold weather these may be replaced by antiseptic unguents applied to the entire surface of the body.

Question.—We ought to know:

Whether, if one child in a household is attacked by roetheln, the others, not immune, can be protected by sulphur saturation?

2. Does emetine exert over the respiratory symptoms and complications the specific influence it does over measles?

3. Does iodine irritate the inflamed glands here as it does in glandular fever?

4. Does any reader know of a case where a patient had had ordinary roetheln, when

that same person also was affected by the scarlatina-like fever, or "fourth disease."

Surely, among the thirty thousand readers of CLINICAL MEDICINE there are some who have made or will make these observations.

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COMMENTS ON THE LESSON

For the benefit of those who wish to begin the course we will explain again that the student may commence his studies at any time and with any number of CLINICAL MEDICINE, though if he prefers he can start with some of the back numbers, for instance, with the first lesson in Part II, which was printed last October. We have reprints of these lessons which will be supplied free to any paid-up subscriber. To obtain the certificate of the School it is necessary that the student study every lesson, write out the answers to the "Examination Questions" at the end of each lesson and send these answers to twelve consecutive lessons to Dr. George F. Butler, in care of CLINICAL MEDICINE. If his work is satisfactory the certificate will be awarded. *It can be obtained in no other way.*

Following are some interesting comments on preceding lessons. We hope that these will stimulate other students to tell of their own troubles as well as their own experiences.

Treatment of Asthma.—Dr. B. F. Harding, Mansfield, Ohio, always furnishes us excellent papers. We take pleasure in quoting him regarding the treatment of asthma:

"Before instituting means calculated to arrest the attack, the nature of the disorder giving rise to the paroxysm should be determined. If the paroxysm is due to cardiac lesion, the remedies most frequently used, such as stromonium, atropine, and the various anesthetics, would be dangerous. When the presence of true asthma is ascertained, the object would be to relieve the suffering. Narcotics and depressants are indicated. Two important factors to bear in mind are the danger of the use of narcotics in forming the drug-habit, and the necessity of giving large enough dose to produce the desired effect. Right here I want to say that the H-M-C tablet has given me the best of results. Morphine bimeconate, 1-4 grain, Magendie's solution, 10 minims, given hypodermically (the dose varying with the age), is recommended by Sajous, but this should be combined with atropine, 1-250 grain. Codeine may be used instead of morphine. However, there is an objection to the use of these remedies, as they produce partial suppression of expectoration in many cases. Strychnine may be added to stimulate the vasomotor system and to equalize the circulation.

"Chloral hydrate is the next best for prompt action and 15 to 20 grains may be given to an adult. Chloroform proves good in some cases, 15 drops in a half glass of water. Ether, 30 to 40 drops, may be used the same way. Here is a formula that I noticed the other day in one of my journals: Morphine, 1-8 to 1-4 grain; strychnine, 1-60 to 1-40 grain; hyoscine hydrobromide, 1-200 grain; this to be given hypodermically. The H-M-C tablet will take the place better, in my opinion.

"Some cases will fail to yield to any of the treatments named until 5 grains of adrenalin has been used. I have not had to resort to this drug and can give no results as to its use. General anesthesia should not be used unless other means fail, as chloroform and ether irritate the larynx. When using chloroform it should he used slowly, and even then it is dangerous if there is a thickening of the tissues about the glottic region, symptoms of which greatly resemble chronic asthma. (Sajous.)

"Iodide of ethyl, 6 to 8 drops, inhaled on a piece of lint; a methyl spray over the anterior of the chest, upper portion; application of a 5-percent solution of cocaine to the nasal cavities; these are good. Pure carbon-dioxide gas inhaled five to ten minutes proves successful. Musser recommends hyoscyamine, 1-140 to 1-120 grain hypodermically. Passiflora incarnata, antipyrin, caffeine, glonoin, aspirol, all have their advocates.

"For curative measures the removal of any organic disease present, no matter where located, should constitute the primary treatment; the chances are much in favor of the

physician when a localized affection is present. A successful treatment of the latter entails the removal of a disturbing element of which the sympathetic system at large, and the vasomotors, bear the burden. Diathetic affections—syphilis, and many other conditions in which uricacidemia is very prominent—require active treatment. Much improvement and in some cases a cure may be had by proper diagnosis.

"One line of treatment, based on the theory of Haig and others, that the contraction of the bronchi and arterioles are due to an accumulation of uric acid in the blood, advises the use of thiolin as a laxative. Give one teaspoonful in a cup of hot water every three hours until free catharsis results, and after that once a day on arising. When the urine is alkaline the medication is omitted for two or more days. In addition the diet is to be limited, strongly nitrogenous food being interdicted.

"In neurotic asthenia cases strychnine in increasing doses, for adults starting with 1-60 grain after each meal, gradually bringing the dose to 1-20 grain, during a period covering two weeks.

"When bronchial lesions are present, potassium iodide in increasing doses, 5 to 30 grains three times a day, to avoid gastric disturbances, should be given in one-half glass of water. Fowler's solution, if added to this, say three minims, counteracts the eruptions and other bad effects of the potassium iodide. I have found that calcidin in 2-grain doses will do the same work and with less trouble to the gastric region.

"When there is a tendency to hemoptysis, atropine is recommended, 1-120 grain daily, by mouth, and gradually increased until 1-16 grain is taken, then decreased, the period covered by this treatment being from four to six weeks.

"Strophanthus, 10 grains three times a day, has been given much credit, but little is said regarding permanent results. It lessens the excitement of the vagus, and a longer time between the attacks has been noted.

Menthol solution in almond oil, 5-, 10-, 15- or 20-percent, injected, or 2 to 5 minims of a 2-percent iodine solution of the pure crystals in almond oil added to each one dram of the menthol solution, is much recommended. Here again it would seem that calcidin would answer.

"When asthma occurs in connection with pregnancy, viburnum is a good remedy. The kidneys should be watched.

"My treatment, as I now use it, consists of the H-M-C tablet for immediate relief; calomel followed by the saline laxative; then treat symptomatically. If the trouble arises from the cardiac center, treat it with cardiac drugs, if from the bronchial center, calcidin will be found the best; but give it in large-enough doses to get the physiologic action. The triple arsenates will be found useful in persons of a weak constitution; addition of nuclein adds much to the results.

"Watch all organs of secretions; see that they do their work properly. Look to the diet. Above all, look for an insanitary condition of the home, bad ventilation, bad sewerage, etc. Advise plenty of fresh air and sunlight.

"I think sometimes one is too anxious and will overdo matters by too much drug giving. Be sure of your diagnosis, seek out the trouble, and you will be more able to produce good results than you would be if you guessed at what caused the asthma."

Iodide Useful in Asthma.—Dr. Theo. Schmalzriedt, Detroit, Mich., in his answers cites a case of asthma which he has treated in the following manner:

"A case which I have observed off and on for some sixteen years. This man came from a part of Germany where the air was always clear, dry and bracing, and he never knew of asthma. Came to this state some twenty-five years ago, and soon he was troubled with asthmatic attacks. Had become addicted to the use of fumes of patented powders and cigarettes when I met him. He never applied for treatment unless the attacks were exceptionally severe, as when complicated by bronchopneumonia. Potassium iodide in large doses gives more lasting relief than any other drug. A recent examination showed profuse coarse mucous râles, emphysema, cardiac dilation, a bronchopneumonia, and asthmatic paroxysms so dis-

tressing that nothing but morphine would relieve them. Within the past four years I have endeavored to get him to submit to continuous medical attention, but as soon as he is relieved he quits treatment and then calls me only when his patented powder fails him. I usually find fecal toxemia in his case. Calcidin, elimination, and intestinal antiseptics have done him some good. Strychnine has seemed to induce paroxysms when things were quiescent. The arsenates I have not tried with him."

Obstinate Asthma Cured by Asafetida.—Our old friend, Dr. Post of Maquoketa, Iowa, describes an interesting case of asthma that he had. He writes:

"Thirty years ago I was in charge of the poor-department medical practice of my native city, and once was called to a police station to see a middle-aged tramp who was suffering from an exaggerated asthmatic attack. I relieved him with a hypodermic of morphine and atropine, and after he had got so he could talk, I began to quiz him about his attacks. He had got so far along that they recurred nightly and he was pretty nearly down and out. By direction he called at my office next day to receive some general treatment and advice. During our conversation it came out that for five years he had been an orderly in Bellevue Hospital, and had received all kinds of general treatment for his asthma, none of which availed in preventing the recurrence of the paroxysms. This information rather put a damper on any hopes I might have entertained of giving him any help.

"As I stood looking over my drug shelves, the thought came to me that asafetida occasionally proved useful in spasmodic attacks, so in desperation I handed him one hundred 5-grain pills of that drug, with directions to take 2 of them four times a day, watching his egress from my door with a feeling of relief that I had gotten rid of the case. But to my surprise he came back in about ten days with the surprising information that he had had no further attacks in that space of time and jubilantly asked for a further supply of medicine and a copy of the prescription as he had made a raise and was going to his old home. I furnished him with the prescription and medicine and never heard anything more of him. Of course, I had given him general directions about his functions and had impressed him with the necessity of eschewing his daily alcohol. I mention this case because doubtless you will have many reports of cases treated by the routine measures, and I thought this report would be a diversion."

EXAMINATION QUESTIONS

1. Make a careful rèsumé of the differential diagnosis between measles and German measles.

2. Can these diseases be prevented after exposure, in your opinion, and how would you undertake to do it?

3. What is the "fourth disease?" If you have ever had a case, describe it.

4. Describe your most serious case of measles, and tell how you treat it.

5. How do you handle the respiratory complications of measles?

6. Describe the blood findings in measles and compare with those in scarlet-fever.

7. What protective measures should be taken in an epidemic of measles? Is the deliberate exposure of children to the infection, "in order to get it over with," justified?

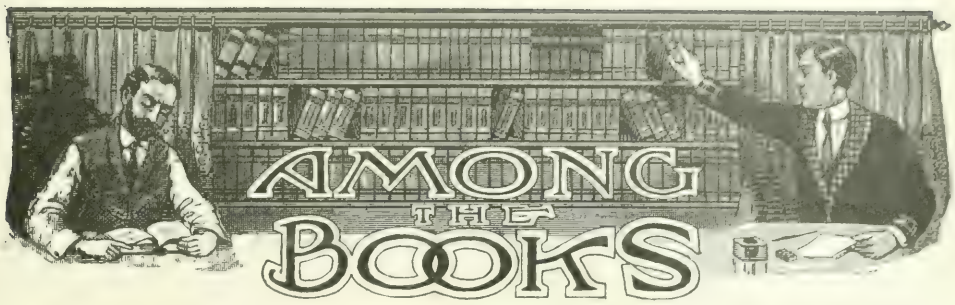
8. How can you explain the immunity developed in consequence of a first attack of measles against later infections? Why are measles more severe and more apt to be fatal in "new" soil, such as in aborigines?

9. Describe the apparatus used and the procedure followed to make a blood count.

10. How should excreta and blood specimens be prepared for shipment to the laboratory?

SODIUM SALICYLATE IN CORYZA AND TONSILLITIS

A. Courtale recommends the above remedy to be taken internally at the very onset of a cold in the head, or rather in the nose, when it will cure it in twenty-four or thirty-six hours. If that period has passed without the remedy being taken it will still alleviate and shorten the course of the malady though it will not check it. In tonsillitis the remedy will rapidly remove the dysphagia.—*Gaz. des Hopitaux*, 1909, p. 1655.



CABOT'S "SOCIAL SERVICE AND THE ART OF HEALING"

Social Service and the Art of Healing. By Richard C. Cabot, M. D. New York: Moffat, Yard & Co. 1909. 12mo. 192 pages. Price $1.00.

On reading this book the Bookworm was carried back in his mind twenty years, when he listened, often on the same bench with the author of this book, to the lectures given in the old Harvard Medical School. The impression he received then of his classmate, R. C. Cabot, was confirmed later by books and papers which have from time to time appeared in literature, and is only strengthened by the volume before him.

Sharp and insistent, searching for truth, and going to the root of the matter. Such was and such is Dr. Cabot. The present inquiry of the author into the duties of the physician to his patient, into the interrelations of physician, social worker, educator and patient, is one well calculated to make us stop and think. Many habits of ours which appear perfectly natural in our daily routine, and especially our insufficient application of the "foreground" and "background" of the "cases" with which we are dealing, are ruthlessly exposed, dissected and castigated.

To illustrate. The author vividly describes how, in his clinical work, he may listen to the story of a patient sitting before him, and how then in his mind he sees not the particular personality of the patient but the type he represents—in the instance given, a Jew. We follow his awakening to the fact that the Jew is not simply a Jew, but a man with a personality of his own, with expressions, characteristics, likes and dislikes of his own, and that he requires personal and individual attention. The author describes the background of the picture and shows how in looking at all aspects of the case a personal note enters the relation of physician and patient. The picture is carried out further in a quotation which we give from the book in the Miscellaneous Department of this number.

In pointing out the faults of the profession, Dr. Cabot never preaches; there is no phariseism, no I-am-holier-than-thou attitude. He speaks in the first person singular, and is always intensely personal.

What faults of the profession he exposes he calls *his* faults. It is the old cry of the prophet: "*Mea culpa, Mea magna culpa.*"

The Bookworm would like to review the book *in extenso* and to quote from it liberally, were it possible either to do it justice in a review or to give quotations and abstracts without destroying or obscuring the full importance of the preachment. The book must be read to be appreciated, and should be read by every physician who wants to become a better physician. Dr. Cabot has done us a service and has served mankind by writing this book, and although its study left us somewhat saddened through the consciousness of things neglected and opportunities missed, it also afforded a stimulus to new endeavor in serving suffering humanity.

SCHOFIELD'S "NERVOUSNESS"

Nervousness. A brief and popular review of the moral treatment of disordered nerves.

By Alfred T. Schofield, M. D., M. R. C. S. E. New York: Moffatt, Yard & Co.

This book is what the title implies, a popular treatise, and the well-known name of the author vouches for the excellence with which the subject is handled. Above all, the author is emphatic in explaining the actuality of the socalled *maladie imaginaire*, hypochondria, hysteria, or by whatever name this terrible affliction may be designated. "A disease true to the imagination is not necessarily an imaginary disease." After entering fully into the causes and nature of nervousness, he offers excellent advice as to its treatment, which is of great value if read and studied by those having charge of "nervous" patients. Physicians even will find much food for thought and many good suggestions. The book is well written and can be read in an evening in leisure.

SMITH'S "COMMON REMEDIES"

Some Common Remedies and Their Use in Practice. By Eustace Smith, M. D. Paul P. Hoeber, New York. Price $1.25 net.

A glance at the table of contents of this little volume will best indicate its scope. The different chapters treat of an unjustly neglected remedy: tartrated antimony; the internal use of the oil of turpentine; the use and misuse of iron remedies; the use of alkalis in practical medicine; antispasmodics and the cure of spasm; some uses of opium; the use of sodium salicylate in certain serous inflammations. The name of the author is a sufficient guarantee for the excellence of the teachings contained in the little book.

DUBOIS' "NERVOUS STATES"

Nervous States: Their Nature and Causes. By. Dr. Paul Dubois. Authorized translation by Edward G. Richards. Funk and Wagnalls Company, New York. 1910. Price 75 cents.

The author, who is professor of neuropathology at the University of Berne, Switzerland, presents a historical and critical study of the conditions now classed under the name of neurasthenia, which, however, were already known to the ancients. And they must, even in antiquity, have been frequent, since Plato excluded from his "Republic" those men always occupied in dreaming of imaginary sufferings, having lost all aptitude for the arts and the sciences, incapable of understanding and meditating."

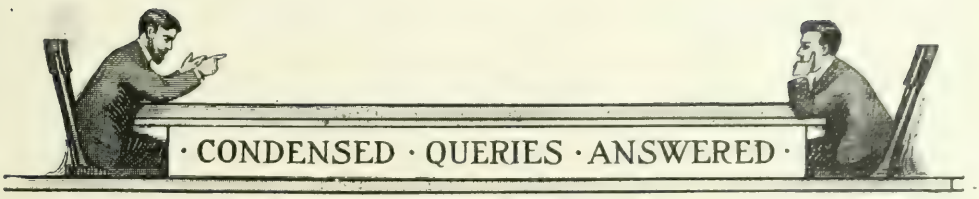
Dubois objects to the indiscriminate employment of the modern term, and reserves the designation "neurasthenic state" for conditions in which the patients present, above all, the symptoms of fatigue, exhaustion and incapacity. There is already some psychasthenia in these patients; there is already some degeneration. But "psychasthenia" itself is properly applied to conditions in which predominate the phobic obsessions, the manias and the tics, and from both conditions the hysterical and the hypochondriac states must be differentiated.

The little book shows not only the results of a large experience but also of careful and sympathetic study. After discussing the causes of nervous states it treats of the importance of the mind as the best weapon to combat the disease. The translation is carefully made, and the book withal is instructive and of value to the physician.

WALTON'S "NERVES"

Those Nerves. By George Lincoln Walton, M. D. Author of "Why Worry?" Philadelphia and London: J. B. Lippincott Company. 1909. Price $1.00.

This little book is dedicated "to those who need it," and its purpose is in line with the present trend in favor of treating or, preferably, of preventing mental disorders by mental methods. Its object "is to promote such peace of mind as may make for health as well as for happiness. In other words, like vaccination, pure milk, and disinfection, it aims to prevent." We do not need to introduce the author of "Why Worry?" to our readers, his quaint and eminently commonsense way of looking at things in general is too well known. His present book is another one of those which we may well recommend to our patients for their wholesome instruction and guidance.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5596.—Referring to Query 5596, page 721 of the June number of CLINICAL MEDICINE, I do not desire to reply to A. B., Wisconsin, but rather refer to work that may be done along these lines by the general practitioner, not only for pecuniary gain but to merit the gratitude of his suffering patient.

Many who are relieved of their supposed rheumatic pains, old-age crippling, etc., are willing to pay well for such operations, and the relief is usually permanent. When a man or woman complains of rheumatic pains and distorted feet and legs, examine the feet, toes, nails, heels, etc., for corns, bunions, callous flesh, etc. The treatment is simple and satisfactory although to some it may not seem dignified.

The instruments needed are few and to the liking of the operator. A corn-knife, as usually sold for manicuring, or a round bistoury, well sharpened, is about all that is required. Place the foot in a convenient position and trim the corns by paring off shavings as thick as can be done without pain to the patient—you may have to support the corn by pressing it against the knife. Take off all calloused or horny tissue until the skin is soft and smooth; the core must be pared out, chip by chip, and if the first operation does not bring it all it must be repeated in one to four months.

Dress with oil of turpentine or any other antiseptic stimulating oil, etc., and the patient will thankfully pay the bill. The lame will walk without a limp and will be able to wear a shoe to fit the foot.

Take plenty of time. Do it when you have time. Corn remedies, that are to be had from all drugstores, at small figures, do little good, often harm—more especially in the chronic and well-developed cases.

R. WILLMAN.

St. Joseph, Mo.

QUERIES

QUERY 5606.—"A Peculiar Case of Cramps." C. F. H., Texas, wants help. His patient, he says, had tried physicians from Galveston to Shreveport and tried everything suggested by anyone, but all to no purpose. A brief history of the case follows:

Mrs. G., age forty, weight 160 pounds, health good, no irregularities, was kicked, when six years old, by a horse over the solar plexus. About three or four years after that she began to suffer with cramps, and ever since, at irregular periods, her toes will draw under the feet and remain cramped from a few hours to two or three months. Hands the same now. At times it is one foot or one hand, then, again, she will "cramp all over." Recently, while engaged in the vegetable garden and feeling perfectly well, a cramp struck her and she fell as though hit by a bullet. Sometimes when passing a plate at the table her hand will cramp and someone will have to take it out of her hand as quickly as possible.

The most careful consideration of the meager data here given does not enable us to offer intelligent advice, inasmuch as one should at least be familiar with the gross pathology. However, there is little question that the injury spoken of lies at the base of the entire trouble, but whether the sympathetic or central nervous system is at fault only the most careful tests can reveal. The reflexes, deep and superficial, must be tested, the spine carefully percussed for areas of hyperesthesia or anesthesia, and at the same time scanned for possible luxations.

The severe attack mentioned, it may be noted, came on when the woman was gathering vegetables, that is to say, while stooping over. Under these circumstances especial attention should be paid to the dorsal and lumbar vertebræ. As the condition has existed now for very many years and local practicians seem unable to discover the true cause, we would suggest that your patient go to Chicago or other large city and submit to a rigid physical examination.

It is not stated whether the attacks of cramping have been more frequent during later life than they were earlier; neither is anything said regarding the circulation at such times or as to the general physical condition. Is there, possibly, sphincteral involvement? What are the cardiac and mental conditions? Has the woman recovered from the recent attack occurring in the garden? Describe closely the conditions during such seizure, particularly as to rigidity of jaw, fixedness of eye, change of color of skin, and so on.

This certainly is a most interesting case, but if any relief is to be hoped for, the primary lesion must first be discovered. We again urge that the patient be brought to Chicago for examination. If we can serve you in this or any other way we shall be pleased to do so.

Query 5607.—"Enuresis Nocturna. Lobelin in Catheterizing." A. P., South Carolina, is treating a boy nine years old who wets the bed every night and urinates very frequently during the day. He asks: "Do you think it safe to give 1-250 grain of atropine at night? Do you advise the addition of strychnine arsenate? I now give him salol, 5 grains, three times a day.

"How would you advise me to use lobelin in case of an old man to facilitate the introduction of the catheter? How strong a solution of lobelin can I use, and how often?"

You will find 1-250 grain of atropine a needlessly large dose, we think, and would advise not to exceed 1-5000 grain. Does this boy suffer from worms, ocular defects, gastric disorders, constipation, adherent prepuce? Is the urinary acidity normal? Read carefully the answer to A. L. W., Wisconsin, and A. R., New York, in the July number, pages 828 and 830.

Lobelin, 1-12 grain, dissolved in 25 minims of water, may be introduced into the urethra to control *spasmodic* conditions, but will not prove effective under other circumstances. Just what conditions obtain in the case you mention and whereabouts does the obstruction exist—in the deep urethra?

Query 5608.—"Stenol. Hermitine. Diabetes." G. E. P., Minnesota, read, in *The Medical Standard* for May, an article on The Nature of Diabetes, in which stenol was mentioned, and he asks, "What is it?" He also wishes to know the nature of hermitine, and further enquires whether a granule containing arsenate of strychnine, iron, quassin and lithium benzoate is useful in diabetes.

Stenol is a preparation marketed by Chas. Chanteaud, Paris. Each granule contains caffeine and theobromine. It is recommended as an excellent tonic diuretic. Its action in this regard is especially indicated in cardiac affections accompanied by edema of the extremities or effusion into the body cavities. It is also highly recommended by some French practicians in nervous depression, during the course of grave maladies and convalescence, neurasthenia, etc.

Hermitine is "isotonic sea water, electrolyzed in such a manner as to place at liberty oxygen and chlorine." In the article by Tissot a 10-percent solution applied on compresses is recommended. It is said to

deodorize, disinfect and stimulate. Epsom-salt compresses are even better, in our estimation.

The combination of strychnine, iron arsenate and quassin and lithium benzoate is a largely used and excellent diabetic formula. If you have a rebellious case of diabetes mellitus it will give us pleasure to outline an effective treatment for the individual upon receipt of a clear clinical picture and specimen of urine. The modern therapeutist does not treat named diseases with a "set formula."

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QUERY 5609.—"Delayed Absorption of Hypodermatic Injection." T. G. W., Pennsylvania, writes: "Reading an article on H-M-C reminds me of my experience in a recent case which raised a question whether untoward effects might not be produced by a delayed absorption of the first injection, thus having effect simultaneously with a later dose. One night, called to a case where excessive pain seemed to indicate its use, I gave an H-M-C hypodermically in the forearm of a strong woman, perhaps thirty years old. Noting no effect, after a reasonable length of time and believing that the drugs were not at fault, instead of giving a second injection I started to investigate. For when H-M-C didn't work I wanted to "know why." I found that the solution was in place (*in toto*) just where it had been injected. I could easily locate it as a cyst-like mass underneath the skin, this too after what, ordinarily, would have been plenty of time for absorption. Vigorous massage soon caused the disappearance of the retained solution and then it did its work. Now, had I given a second injection without noticing that the first was not absorbed, would not both together have been liable to have an excessive action?"

The condition you describe while rarely encountered is a particularly interesting one. In all of our experience we have never noticed delayed absorption of a properly prepared solution of H-M-C, nor any cumulative effect. At present, however, we almost invariably select the "modified" H-M-C formula when administering to produce mere analgesia. The full-strength (No. 1) formula was designed particularly for anesthetic purposes, of which, as you know, two doses frequently produce profound sleep. Of course, if absorption does not take place, neither preparation would produce results. H-M-C "modified" may be given internally in such cases with advantage.

We should like to ask you, Doctor, just how long after injecting the solution you commenced massage. It is barely possible that the injection was not made deeply enough. Had you given a second injection in the same locality its absorption might have been equally slow. On the other hand, the entire amount of the drug might have entered the system at the same time and produced an undesirably profound effect. It is wise, therefore, save in surgical cases, to use the half-strength or the "modified" formula, injecting the solution into loose subcutaneous tissue, thoroughly massaging the arm for two or three minutes thereafter.

Another good idea is to exhibit one half-strength H-M-C hypodermically and maintain the effect (or enhance it) with H-M-C Modified given internally.

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QUERY 5610—"Gold-plated Thermometer Cases and Pocket Scales." D. B. J., South Carolina, expresses the opinion that if dispensing physicians could obtain a handy prescription scale suitable for carrying in their medicine-case it would encourage dispensing by the doctor very much. He says: "The scale should be accurate and elegant and filled gold. Doctors often omit weighing for lack of prescription scales. Our thermometer cases should be of finer material too."

A very compact and practical folding scale is listed by the surgical instrument houses. Prices and descriptions of the various folding pocket-scales can be procured from any surgical supply house.

We do not quite see the necessity of making thermometer cases of expensive material, a good hard-rubber case answering every purpose, being easily sterilized and not readily collecting dirt. However, thermometer cases *can* be procured in platinum, silver, gold,

mother of pearl, etc. The esthetic physician "with an eye to the beautiful" can easily expend $25 upon a (chased) gold thermometer case; in fact, the writer recently saw a thermometer case of gold decorated with emeralds and diamonds. Jewels seem just a little out of place in this connection, however. The everyday doctor assuredly cares more for a reliable thermometer than an ornate case for the same.

QUERY 5611—"Hookworm Disease, or Uncinariasis." C. T., Florida, asks whether Dr. Stiles is recognized as an authority on the nature and treatment of hookworm disease. Also, "how many deaths have resulted from hookworm treatment up to date?"

Dr. Stiles, mentioned by our correspondent, unquestionably is a recognized authority on uncinariasis. We can not possibly state how many deaths—if any—have resulted from "hookworm treatment." Thymol given in massive doses (especially with oil) naturally would prove more or less toxic. Very few clinicians would care to give more than 60 grains of thymol a day, although 30 grains (and even more) have been given as often as every four hours for two days in succession without the appearance of undesirable symptoms. Children under five should receive not more than 10 grains, the dose being divided into two equal parts, the second half being given one hour after the first. Children from five to ten may receive 10 to 20 grains; from ten to fifteen, 20 to 30 grains; from fifteen to forty, 40 to 60 grains. The day before treatment the patient should eat lightly late in the afternoon, receiving a full dose of calomel. Castor oil dissolves and renders more absorbable the thymol and is therefore interdicted as a cathartic.

QUERY 5612.—"Vomiting Caused by Grain-Doses of Santonin and Calomel." S. J. F., Ohio, finds that every time he administers santonin and calomel tablets (containing one grain of each drug) they cause vomiting.

The small repeated dose (i. e. 1-10 gr.) always is to be preferred. One grain of santonin frequently produces nausea, and the writer (who has had an extended pediatric practice) has seen many children vomit after the exhibition of a grain of calomel. If the two drugs are combined—especially when dealing with a patient infected with lumbricoids—nausea may be expected in a large proportion of cases.

If you will give 1-10 grain santonin and the same of calomel, half hourly for four doses before retiring, and four such tablets before retiring, you will get perfect results and will not observe nausea. Yellow vision, which so freqeuntly appears after large doses, is entirely absent when this method is followed. In nearly every case it is wise to give a saline laxative or a dose of castor oil the next morning, and if the child has been constipated for some time clean out the intestinal tract forty-eight hours prior to the exhibition of the vermifuge.

QUERY 5613.—"Solubility of Alkaloidal Granules." R. C. C., Illinois, wishes to know whether a majority of the active-principle granules form a stable and uniform solution when water is added? Also whether it is a good plan for the physician to dispense 24 granules of the dosimetric trinity in 3 ounces of water?

The doctor should bear in mind always that alkaloids are soluble in water, but glucosides and resinoids rarely so, although the granules containing them can be readily disintegrated in hot water, or hot water and glycerin. A "shake" or "stir-well-before-taking" label should always be attached to the container in the case of insoluble substances.

It is also well to bear in mind that there is no such thing as minimum or maximum doses for the positive therapeutist, as the amount of drug which will effect A will not suffice for B, or even not A under different conditions. The safest rule is to give the smallest known-to-be-effective dose (i. e. the standard granule) at intervals to effect, remedial or physiological. If the physiological action of the drug is apparent before remedial effect is secured we have erred in our choice of remedy or have omitted some essential therapeutic procedure.

When dealing with extremely potent and toxic alkaloids (veratrine, aconitine, cocaine, etc.) it is wise not to give the patient at any one time more than the maximum *safe* dose. Of course much depends upon the intelligence of the nurse or individual under treatment.

When toxic drugs are being given to infants or children under five, the *Shaller aconitine rule* (as modified, see CLINICAL MEDICINE, January, 1910, page 94) may be followed, i. e., one granule for each year of the child's age, dissolved in 24 teaspoonfuls of water, one granule being added "for the glass." A teaspoonful of this solution may be given half-hourly or hourly to effect. Physicians familiar with the alkaloids do not, however, hesitate to give much larger doses, and we rarely exhibit less than 1-8 of a granule to the youngest patient. Naturally, if the drug used is extremely potent we watch the case closely or instruct the nurse to stop the remedy after a certain safe number of doses have been given.

In this connection we would point out again the fact that the condition present in the individual must, to a great extent, control dosage. For instance, an infant two and a half or three months old suffering from a severe congestive condition would probably be relieved promptly by a third or a half granule of hyoscyamine, smaller doses being given every fifteen minutes thereafter until the face is flushed. Relief should have been secured by this time. Many men have failed to attain results owing to the use of too small doses. In acute conditions it is desirable to make a prompt impression. If the physician will bear in mind the fact that the granule represents the smallest effective dose for an adult—hence the full average dose for a child of one year—he will be able to medicate intelligently.

As we have already stated, special care is necessary when administering aconitine, veratrine, and other toxic alkaloids. A 3-ounce solution containing 24 granules of the dosimetric trinity should rarely be dispensed. In the first place, each teaspoonful would represent one granule (aconitine, gr. 1-134; digitalin, gr. 1-67; strychnine arsenate, gr. 1-134), and even an adult with lobar pneumonia rarely requires twenty-four such doses in twenty-four hours, and a patient so affected should be visited within that period.

If one trinity granule every half hour for four to six doses, and an equal dose hourly thereafter for six hours, does not produce the desired effect, the doctor should direct his attention elsewhere. He has failed to eliminate sufficiently, and has to deal with a foul intestinal tract, inactive skin or profound sepsis. We would suggest 8 to 12 of the trinity granules to 3 ounces of water, and ordering frequent doses of this weaker solution at first, gradually lengthening the intervals. If through some misadventure the patient should take the entire quantity, no particular harm will be done; on the other hand, twenty-four granules might possibly produce very undesirable results.

Whenever it is possible give the granules themselves with a few swallows of water. Children of course prefer solutions, as a rule, and, as pointed out, practically all the granules can be so dispensed. The addition of a little aromatic elixir, sugar or glycerin, and coloring matter to please the palate and eye of the little patient, is desirable.

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QUERY 5614.—"Baunscheidtism, or Acupuncture." J. E. B., Wisconsin, wants information concerning "Baunscheidtism."

We can not answer this inquiry any better than by a quotation from "The Standard Formulary." (G. P. Engelhard & Co., Chicago), which says:

"Baunscheidt was a German charlatan who claimed to cure rheumatic and other diseases by means of what he called a 'lebenswecker,' i. e., 'awakener' or 'revulseur.' This consists of a number of sharp-pointed needles set in a bed of hard rubber. By means of a spinal-spring arrangement these needles are driven into the skin over the seat of pain, not deep enough to draw blood, while into the wounds produced is rubbed the 'Baunscheidt oil.' This is an irritating substance and produces papular eruptions similar to those produced by croton oil. The

effect is that of a powerful counterirritant. In medicine this treatment is known as acupuncture. Formulas for the oil are as follows, as given by Hager:

I.

Euphorbium, powder	grs. 160
Cantharides, powder	grs. 96
Olive oil	fl. ozs. 8

Macerate for 7 days and filter.

II.

Euphorbium, powder	grs. 140
Mezereum, cut fine	grs. 280
Cantharides, powder	grs. 30
Alcohol	fl. oz. 1
Ether	fl. ozs. 1 1-2
Olive oil	fl. ozs. 8

"Mix the two powders, alcohol and ether in a closed vessel, macerate for 7 days, agitating occasionally; then add the oil, macerate again for 7 days, strain, heat the colature gently so as to expel the ether, and filter."

QUERY 5615.—"'Best Remedies' for Spermatorrhea." A. B., Iowa, asks: "What is the best remedy for loss of semen at stool?"

The remedies useful in loss of semen are quite numerous, the choice naturally depending upon the conditions present in the individual. Hydrastin and ergotin together with specific staphisagria often prove effective and are generally applicable. The proportions preferred by the writer are ergotin, gr. 1-6; hydrastin, gr. 1-6; specific staphisagria, 3 to 5 minims, every four hours. Thymol in oily solution may advantageously be injected into the deep urethra, while in every case the prostate and deep urethra should receive attention. The perineum and lower abdomen should be sprayed or sponged daily with cold salt water, and the patient's bowels be kept open freely. It is advisable in most cases to have the patient wear a well-fitted suspensory bandage. Quite frequently the fluid voided is not semen at all, as suspected, but mucus. Microscopical examination of the discharge will enable one to arrive at a definite conclusion. Masturbators really losing semen at stool present numerous other symptoms: lassitude, debility, dizziness, self-consciousness, anemia, etc. Occasionally seminal losses persist in robust-looking men who have masturbated excessively in the past, and even healthy, continent men may perhaps lose semen occasionally during defecation.

Not infrequently the passage of cold steel sounds in addition to a course of iron, quinine and strychnine with phosphorus in some desirable form will prove the "best" treatment. The faradic current, cauterization of the prostatic urethra, and dilatation of the sphincter ani occasionally are indicated. The main essential is a close diagnosis.

QUERY 5616.—"Caustic for Destruction of Angioma." E. W. K., Kentucky, desires something better than the dermal caustic usually recommended for the removal of small facial blemishes? A small angioma exists on the face of a young girl and the solution of sodium ethylate has been applied at intervals for nearly a year without any practical result. The angioma is about the size of a silver dime and stands up about one-sixteenth of an inch above the surface.

We cannot understand how sodium ethylate could fail to destroy a simple nevus. Used in the right way this solution will destroy any blood-filled growth, and an angioma the size of a dime and only one-sixteenth of an inch above the surface should disappear under three or four applications.

Nevi may also be treated by electrolysis (for methods see any work on electrotherapeutics), or you may try multiple puncture with a set of fine needles dipped in a 50-percent solution of chromic acid and then made to penetrate the affected area. Pressure arrests the hemorrhage and the patch is covered with a layer or two of flexible collodion. Potassium hydroxide, corrosive sublimate and carbolic acid may all be used to remove small nevi, but we should adopt multiple puncture with chromic acid or electrolysis if sodium ethylate failed us. Is it possible that by any chance you have used a "dermal solvent" in place of the *caustic*?

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Antisepsis in Typhoid Fever

SOME months ago a writer in an eastern medical journal stated that the doctrine of intestinal antisepsis in typhoid fever had "received its quietus" in Johns Hopkins Hospital. Inquiry as to the nature of this "quietus" revealed as the sole foundation of the statement a remark by Osler, to the effect that in a series of cases there treated he had not employed intestinal antiseptics! As another writer in the same journal remarked, hero-worship could go no further.

There is a further word to be said on this admission. In the last edition of Osler's "Practice" (1909), page 61, he acknowledges that in Johns Hopkins Hospital, despite "special precautions and an unusually large proportion of nurses to patients, we have not been able to avoid 'house' infection." Thirty-one cases were contracted in the hospital, including five physicians (two died), fifteen nurses, eight patients and three employees. And yet it was at Johns Hopkins that Nuttall demonstrated the efficacy of fresh whitewash in disinfecting typhoid excreta.

The proposition seems tenable that Johns Hopkins' experience has put a quietus on the doctrine of the uselessness of intestinal antiseptics. At any rate what evidence she has furnished is altogether on that side of the question.

In the same edition Osler devotes a suggestive paragraph to the typhoid carriers. Typhoid bacilli have been found in the urinary and gall-bladders ten and twenty years after the fever, and even in bone lesions after many years. A baker had the bacilli in her stools plentifully ten years after her attack, and every new employee in the bakery was affected with a typhoid malady. Soper's similar case had brought typhoid into seven families who had employed her. In her stools were found large numbers of typhoid bacilli.

Dean reports a typhoid carrier of twenty-nine years' standing, and even longer instances have been recorded.

We would suggest to Johns Hopkins that she revise her doctrines and practices, and adopt the intestinal antiseptics—or at least give them a full, fair, scientific trial.

She won't do it. Men as a rule are pig-headed. They adopt a view and then see and hear nothing that does not go to confirm it. If the evidence diametrically antagon-

izes their view they discredit the witness or question the accuracy of his observations. Even Osler is averse to acknowledging himself in error—that may be safely assumed, for he is only human. Were Johns Hopkins to make a test of this method it would be with the hope, the belief, even the intention, of proving it a failure. The tests would be made in a careless, impatient, annoyed manner, with nurses in similar disposition, by persons unfamiliar with the method, its technic and limitations. The tests would be surely negative. The preliminary cleansing of the bowel would be neglected or imperfect, the antiseptics of chance quality, perhaps not given by the nurses but dropped into the sink, the doses inefficient, the antisepsis not maintained. It would be so very easy to find that "zinc sulphocarbolate given until the stomach would retain no more still failed to abate the offensiveness of the stools or reduce the number of their specific bacilli, or to favorably modify the symptoms."

Surely, such a verdict could be rendered after a trial that would be received as fair by the bulk of the profession—and yet it would be a wrong, an unjust one.

Intestinal antisepsis is not so simple a matter. Practice brings skill in handling these remedies and reveals difficulties. No antiseptic will penetrate solid fecal masses, or permeates large quantities of feces. The bowel must be completely emptied, and by harmless means—in itself not always an easy task. The antiseptics must be pure and given to full desirable effect, to dose enough; and this effect maintained without intermission in which bacterial pullulation may be resumed. Urine, stools, anus and genitals must be thoroughly disinfected after every evacuation.

The detail should emulate the perfection of surgical technic and likewise be carried out by an expert. Even then some error may creep in to vitiate the result. Let me illustrate. I once undertook so to disinfect a house that the returning children would not contract scarlatina. Walls, ceiling, floor and every article contained were thoroughly treated, yet the result was a failure, because I had neglected to disinfect the mother's hair. Yet this did not prove the other precautions worthless. Extinguish a fire all but one little bit; leave that and the conflagration will be reproduced. Disinfection should be perfect; yet it is not an accurate analogy since we know that pathogenic microbes are harmful in proportion to their numbers. An enormous swarm generates toxins enough to overwhelm the system. Destroy most of the invaders and the defensive powers of the body suffice to cope successfully with the remainder.

The focus of typhoid infection is the stomach and duodenum. Here the bacilli are found most plentifully. Some are found in the esophagus, the throat and mouth; many in the jejunum, less in the ileum, and few if any in the large bowel. Antiseptics given by the mouth go to the part where they are most needed.

Too much stress has been laid on the discovery of typhoid bacilli in the blood during even the incubation stage of the attack, and far too much on the negative results of fecal examinations. The quantity of feces examined by the lens is microscopic indeed, and there must be a tremendous infection if every such infinitesimal particle contains the microbes. Why will men jump at conclusions not logically or even inferentially deducible from the premises?

One other point requires discussion: It has been urged as a reproach to the users of intestinal antiseptics that they claim to abort or shorten the course of typhoid fevers, when it is not possible to abridge the duration of such infective febrile maladies.

I again quote Osler, page 91: "J. B. Briggs has studied 44 of these mild cases from my clinic, in which the fever lasted fourteen days or less." No suggestion is made that the treatment had anything to do with this shortened course. Probably it hadn't. The force of nature within the patient's body sufficed—the point is that some cases do run a course less than twenty-one days. If nature can accomplish this, may we not aid her in doing it and shorten the course in a larger proportion of cases? Since many more abortive forms occur when the intestinal antiseptics are skilfully applied, does it not

seem the most natural of reasoning to credit the better results to the treatment! Let me ask the bacteriologist if it is not in accord with his observations on the biology of pathogenic microorganisms that a reduction of their number to a small remnant of the whole, and breaking up and disinfecting the primary foci of their establishment in the body, should reduce the gravity of their attack upon the patient? In treating septicemias, if we discover and destroy the primary focus an improvement follows that is far and away more decided than that which follows the evacuation of enormous bulks of pus from secondary abscesses.

Let me ask the clinician if he has ever noted a case of infectious fever, where the elimination of fecal toxemia as a pathogenic factor has not been followed by a decided improvement in the patient's condition, a lessening of the gravity of the attack and an increase in the proportional vigor of the vital resistance?

The theory is unimpeachable; to question it now denotes sore lack of familiarity with modern biologic science. The practice confirms the correctness of the theory.

Sow an act, reap a habit;
Sow a habit, reap a character;
Sow a character, reap a destiny.
—William M. Thackeray

DR. BETTERMAN'S LETTERS

"I sometimes feel the sadness of fate that a man must live one life before he knows how to make the best use of it. By rights the theory of transmigration of souls ought to be the truth."

We are never so busy, and our desk is never so much piled and stacked high with journals, pamphlets, review books and what not, but what we take the time to read Dr. Betterman's letters in Albright's *Office Practitioner*, from which we quote above. They are gems, every one of them; chockful of good sense and of a rich, ripe sympathy, not only for the young doctor starting out in his professional life, but for all mankind, suffering and unhappy or contented and happy. With the former he suffers and is unhappy, with the latter he rejoices. And through all his quaint sayings and his splendid advice there runs a thread, distinct and clear, telling of a life well spent, of problems solved, of lessons learned, even though at the cost of bitter experience.

The sadness of fate, that a man must live one life before he knows how to make the best use of it! How often we have thought of the apparently foolish waste of life and energy. Here is a Virchow who throughout a long life of study acquired more information, experience and knowledge than is often given to one man to possess. And when he passed away the entire immense mass of accumulated experience and knowledge was lost. True, he left the information behind him, for his writings are many. True, his opinions, expressed on all occasions, on mooted points and difficult problems, were carefully preserved in the records of medical lore; but the experience, the knowledge derived from it, is none the less gone. The ability to draw conclusions, the power of differentiating he could not transmit. These have to be acquired by every one for himself.

Take an old family doctor, like we imagine the prototype of Dr. Betterman to be. In ultrascientific information, in laboratory technic, in surgical dexterity he may have his superiors. The graduates of recent years who have had the benefit of several years' hospital training and of a later "*Studienreise*" abroad, walking the hospitals and working with the greatest authorities of the world in their respective fields, may be able to write more scientific papers, to discuss more learnedly the conditions confronting them. But can they treat their patients as well as he does? Can they differentiate and distinguish in the same kindly, genial way between "cases" and "patients"? Do they possess in the same degree the confidence and the heartfelt gratitude of their clients? This cannot be bought, as little as the best that is in the services of a physician can be paid for. They must be earned by a life's devotion to one's calling, by years of toil and service to the suffering, by constant devotion and sympathy and kindly entering into the physical and mental ailments of the people

coming to him for advice, for help, for counsel.

Verily, the life of a physician is hard—none harder. But is there not a reward beyond prize in the gratitude and affection of his charges? in the brightening of the tired and worn features, both of patients and their attendants when the doctor enters the sick-room? in the courage which they so manifestly gain from the simple words of cheer and consolation which he may voice? in the affectionate hug with which the little children greet him in their desire to play with him, to explore those wonderful bottles and the medicine-case he chooses the pretty little pills from? We have wandered from our text and we ramble, for the temptation was great. Dr. Betterman's letters always set us off thinking and dreaming.

But to return to our muttons. It does appear sad beyond the power of expression by words that the whole rich yield of a life of devotion and of service, the entire precious experience and knowledge should be lost and should go to waste, leaving nothing more than the mere information, from which, together with our own experience, we later ones have to construct again our own experience and *knowledge*. If only we could impart what we *know* to others! If only we could spare them the discouraging and heart-breaking seeking and searching for themselves!

It is a truism that young people do not want to benefit from the experience and advice of their elders. We were that way ourselves. But if we could start over again with the benefit of our experience to guide us; if we could live our lives over again knowing what we know—how different we would act! How much better we would do. Of how much greater value our services would be. It is the old cry: If we only could—.

ONE-SIDED CRITICISM

Considerable interest has been aroused by the publication of the criticisms of medical colleges by Mr. Flexner, of the Carnegie Foundation. It is said that this was the occasion for Yale's plucking about 30 percent of her class this year. Query—Was this fair to the men?

It may be a good thing for a college to get a share of the Carnegie benefactions, but on such a basis is it a square deal for the students? Does it speak well for any college that it failed to prepare 30 percent of the class for its own examinations? Just look at the status of the rejected ones. Yale refuses them another trial, and they must give up the plan of entering the medical profession or resort to some other college that is willing to stand for the reproach of taking up the cast-offs of other schools.

The place to stop the man who has not in him the qualifications for medicine is at the entrance to the course, and not after he has spent four of the best years of his life in preparation. Entrance tests should be made higher, and not be based on the parrot ability to answer a few questions, or the fact of having covered so many years in school, but should be a test of the man himself, of his ability to appreciate the facts of medical lore and to apply them successfully.

How is the foreigner to be judged? The graduate of Dorpat or of Zurich may be defective in English, while his education has been of the highest order. A case occurred last winter where one college was censured for matriculating a student who "could not spell ordinary English." True, but he was a product of Europe's gymnasia and one of the most celebrated universities in the world. His knowledge of English was sufficient to enable him to comprehend his teachers, and in conversation he bore himself creditably; but he had not learned to "spell English" correctly.

Then the old cry comes in—there are too many doctors and yet these pesky colleges are turning out more! The judgment is based on the standards of Europe, where the population is concentrated, the masses are poor, and the doctor is only called when the patient is at the last gasp. The ground covered by the American doctor is much wider, his patients are nearly all able to pay, and they want the doctor at once, as soon as illness is declared. It is like the dentist's

work: instead of being called only to extract aching teeth his field has expanded into preventive work, and twenty dentists make good incomes where one found a precarious living fifty years ago. We average one physician to about 600 people—and surely the man who properly cares for the health of 600 persons has his hands full. We are sorry for the doctor who could not keep busy with such a clientele.

But the man who looks no farther than the fact of America being supplied with twice as many doctors per capita as France, or ten times more than Russia, fails to take into account the reasons for this phenomenon. He never stops to ask the why for existing conditions, but at once clamors for the adoption of customs that rule in some other land or latitude. The Eskimo is sure the inhabitants of Panama should wear furs; the Philadelphian is scandalized that the polar habitant does not wear a turn-down collar and derby hat with a sack-coat.

There is a whole lot of sense in the saying that whatever is, is right. Men emigrating, in time adopt the customs of their new homes, finding in them what suits the locality. The Englishman who goes to India and persists in eating roast beef and drinking brandy soon learns to adopt habits suitable to the climate, or makes way for other men who are able to learn.

Why, then, should we try to adjust ourselves, medically, to the sociologic index of overcrowded and poverty-ruled Europe? We have our own problems and must work them out in our own way. The first consideration in the judgment of a medical college, or a medical man, is *efficiency*.

The only way to humanize a cow's milk is to pass it through a mother.—John J. F. Sykes.

OSLER'S "PRACTICE" AND "TREATMENT"

Have you seen the last edition of Osler? Get it, compare with the preceding, and you will have a surprise. It has therapeutics in it, yes, copious therapeutics. What does it mean? Read between the lines and you may easily make a diagnosis.

The publishers have gotten after the author—sales falling off—the other textbooks that give some treatment gaining popularity. The men who buy works on Practice demand some help in their business from them. And so Professor Osler has to name some treatment in his book.

But how it grits him. He hates treatment; his whole heart is in the abstract, impersonal study of disease and its effects—and it is little short of a crime to interfere rudely with the course of nature when everything is progressing "normally" toward that ending where the autopsy so beautifully confirms the diagnosis, and clears up the little uncertainties due to deviations from the type, that had never previously been described.

I never take up Osler without an increasing admiration for that great pathologist. How graphic his descriptions, how masterly his differentiations, how profound his knowledge of the human body, and how unerring his detection of its tergiversations. His erudition is immense. But it is with impatience, with little attempt at concealment, that he wrenches his mental faculties away from the studies his soul loves, to take up the despicable subject of "treatment." No truly scientific mind can consider therapeutics, says Vienna, and the ideal case is one in which the diagnosis is confirmed by the autopsy. Of this school Osler is the great exemplar today. Still—you *must* have therapeutics, you say, so take it!

Nothing human could prevail on him to admit the utility of intestinal antisepsis, although his own disciples come to his feet and diffidently show its specific need and efficacy. Well—Gross never admitted the nonidentity of chancre and chancroid, Garretson never accepted the germ-theory or cleaned his instruments. Men of the sterner type, of tough mental fiber, make sure their creeds and never alter them until they come under the sway of a stronger will—and where is he who overtops Osler! Don't expect impossibilities, even of an Osler.

He has not the smallest belief in drugs. Hear him: "Try these five remedies and when they have failed call in the surgeon." Not a word as to what conditions call for each of

the remedies named, or why he expects them all to fail, but simply a huge sense of relief when the responsibility is shoved over upon the surgeon. He does not know! ! ! !

Hear this: "The treatment of whooping-cough—six weeks and a big bottle of paregoric." How *can* he be ignorant of the value of calcium sulphide and hyoscyamine in this malady, or of quinine, bromoform, pertussin, and the fumigations? Where has he kept himself to miss all this? He simply refuses to hear of successful treatment, or if he must hear it, he ignores it.

There's one remedy though, one drug of which he knows something. Shoemaker once said that Dulles' treatment of emergencies might be thus summed: "Put a keg of laudanum on tap and give it for everything." That is not very far from Osler. One's hair rises as he hears the constantly reiterated advice to give opiates. Doesn't he know the perils of the habit-formation, or the interference with digestion and elimination, or the values of the other sedatives and anodynes which have plucked the jewels from the crown of morphine until scarcely one remains?

Of what use is all this exquisite refinement of pathologic insight, this acute diagnosing, this unremitting search into the arcana of nature, these long hours poring over the microscope, these extradelicate laboratory investigations, if nothing comes of them except the barren science that leads nowhere? If after the fine differentiation we had a treatment applied for each phase, that treatment deduced from a recognition of the deviations from normal physiology and the known powers of remedies (not necessarily drugs), in influencing a return to normal operation, we should then be ready to applaud the work unstintedly. They say the world is now 70,000,000 years old. It will require another such period to reach the ideal here described, at the rate our pathological-laboratory friends are moving.

There's an old doctor living near Cincinnati who was brought up in the school, now obsolete, that demanded utility of the doctor. One day a wealthy patient rushed up to him on the street, and excitedly exclaimed that he had just by mistake swallowed a teaspoonful of tincture of aconite! Only the promptest action could save the patient. Cooper told him to open his mouth, and then he squirted tobacco juice into the man's mouth —and ran for his own life! The man would have caught and killed him had it not been for the terrific vomiting that set in. But the fellow's life was saved.

What would Osler have done?

Given a first-class description of symptoms of aconite poisoning, with a detailed account of the anatomic lesions. That's what he would have done.

Keep moving. Things move so fast these days that people who say "it can't be done" are interrupted by people who "do it."—Patrick H. Houlahan.

SOME THINGS THAT THE DISPENSING DOCTOR SHOULD KNOW ABOUT HIMSELF

Truly, it is often edifying to "see oursel's as ithers see us." Probably you who read these lines are a dispensing doctor. Are you aware that you—

Know little about medicine—

Care not so much for the sick patient as for the money you can squeeze out of him—

Buy the cheapest, poorest drugs you can find, so as to make more money—

Care nothing about the quality of those drugs, only for the price at which they can be bought—

Are not a "high-class" doctor, the explanation being that you do not write prescriptions for the druggist to fill—

Are likely to make mistakes which may cost lives—and more likely to do this than the druggist—

? ? ?

We garner these interesting "facts"(! ?) from a leaflet issued by *N. A. R. D. Notes* (the official journal of the National Association of Retail Druggists) for free distribution among the laity. These leaflets are being enclosed with the packages of headache powder, bottles of patent kidney "cure", etc., that are handed over the counter by many a retail druggist. Of much the same type is a full-page article that appeared in a recent

number of the Sunday edition of the Philadelphia *North American*, written by Dr. Christopher Koch, vice-president of the Pennsylvania State Pharmaceutical Examining Board, though the latter is even more false and misleading in its statements. These two interesting documents are quoted at length in the Miscellaneous Department, this issue.

It seems that a campaign of vilification of the dispensing doctor is on. The purpose is, of course, to discredit him with the layman if possible.

My dear doctor, when the druggist in your neighborhood begins the distribution of these leaflets aimed at *you* and *your* practice, what do you purpose to do about it?

Turn the other cheek?

Or get busy?

Our advice is to take the matter up in your medical society first of all.

See the farmer flushing the barnyard filth off his boots at the farm pump—hear the water trickle back into the well—observe the innocent vacationist who comes along and drinks the polluted water from this well—he may even comment on its fine, cool qualities—three weeks later he calls the doctor—diagnosis, typhoid fever. Not an uncommon thing.—William A. Evans' "Healthograms"

MORE PROPOSED LEGISLATIVE TOMMY-ROT

The Western Druggist is not satisfied with the resolutions proposed by *N. A. R. D. Notes*, to place the druggists' association on record as committed to efforts to suppress the dispensing doctor by law, because these resolutions concede to the doctor the right to dispense his own remedies in case of emergency. *The Druggist* wants even this final privilege to be taken away from us, or what amounts to the same thing, proposes that the Association shall pass *another* resolution, to the effect that "whenever a physician dispenses his own remedies and thereby assumes the functions of a pharmacist, he shall deliver to the patient a prescription of the remedy or remedies he intended to prescribe and that in cases of fatal termination he shall not be authorized to issue the death certificate but the proper health officer shall certify the cause of death."

In other words, if you should be called to a patient *in extremis* and should have the temerity to endeavor to save his or her life with remedies you might have at hand (instead of sending around to the drugstore for something) and the patient should die, then a coroner's inquest and an autopsy would be in order, to determine whether you killed the patient or not!

Do you suppose your patients would like this? How it would contribute to the physician's efficiency in emergencies!

PLANS FOR THE FUTURE

We have undertaken a hard task—to make CLINICAL MEDICINE better the coming year than it has ever been before. Nevertheless, if we can secure from our readers the cooperation that we expect, we shall be able to make good. A special feature will be several serial articles. One of these began last month. We refer to Dr. Ralph St. John Perry's series upon "The Injured Hand." In the last issue he discussed its "Cleansing and Examination." In this number he takes up "Injuries of the Bones of the Hand"—to be completed next month; and this will in turn be followed by articles upon "Injuries to the Joints," "Gunshot Wounds," "Burns," "Cicatrices and Contractions," "Foreign Bodies," "Amputations," "Excisions," "Infections," and other topics of practical interest. Every article will be profusely illustrated. Dr. Perry has had a wide experience on two continents, and he is a beautiful writer as well as a good physician, full of novel ideas.

Beginning this month we present a series of articles upon "Everyday Surgery" by Dr. Benjamin H. Breakstone, who is professor of surgery at the Bennett Medical College and the successor of Dr. Byron Robinson as attending surgeon to the Mary Thompson Hospital, this city. Dr. Breakstone will describe only the operations which any physician may be called upon to perform, and which he can do (after reading these articles) with credit to himself and satisfaction to his patients. The operations described can be performed under local anesthesia (the anes-

thetic technic will be given in detail) and in the majority of cases in the physician's own office.

Dr. Breakstone describes this class of work as "ambulatory surgery." Among the operations described will be those for circumcision, hydrocele, varicocele, hernia, the abortive treatment of carbuncle, bunions, and other surgical ailments of everyday occurrence. The ability to perform these should add largely to the physician's income. Every one of these articles, each complete in itself, will be profusely illustrated by drawings especially made for the author from work actually being done. They are so clear that, with the text, mastery of the surgeon's technic will be grasped without the slightest difficulty.

We are also promised a series of articles by Dr. Charles Stuart Moody on his life among the Nez Percés Indians, telling of the history, traditions, customs, medical knowledge, diseases and social condition of this rapidly dying race. It will describe Indian life as seen through the eyes of a physician who has dwelt among the tribesmen. Dr. Moody is not only an able physician, a firm believer in active-principle medication and a royal good fellow, but he is a writer of national reputation. His articles on "Backwoods Surgery and Medicine" which appeared in the *Outing* magazine have been reprinted in book form. (See Review section, this issue.)

We also are planning to add to the number of experience talks on practical subjects, given by members of the "family." CLINICAL MEDICINE has always taken first rank as being "the most helpful medical journal published." We wish to make it even more helpful, but we can only do so through the earnest cooperation of our friends. Little "kinks" of therapeutic technic, brief reports of experience, records of results obtained with old remedies or new, all these will be most gratefully received. Remember that we want *short* articles (we get more of the long ones than we can use), and that the primary purpose of this journal is to help in curing the sick. *Cut out the theory.* Come on with the fact.

Don't forget the Post-Graduate Course. If you haven't followed it closely (as you should) you do not realize what splendid work Dr. Butler and his helpers are doing. A much larger percentage of our "family" should be formally enrolled as students. The certificate of the course is awarded to those who study twelve consecutive lessons and answer the required examination questions.

Help us to strengthen CLINICAL MEDICINE! If you don't see what you want ask for it. We'll try to supply articles on the topics in which you are interested if you will only let us know your needs. And, finally, if you have under your hat a "story" of some kind that will put dollars into other men's pockets (as it has into your own) you are respectfully but urgently invited to "come across." Remember, we are all brethren.

Every action of every man has an ancestry and a posterity in other lives.—Henry Drummond.

AN EXPERIENCE NUMBER

The October number of CLINICAL MEDICINE will be an "experience number." It is our purpose to fill it, as far as possible, with records of actual work done by successful men—not long articles, but short, concise statements of clinical experience. We are particularly anxious to know how physicians treat their patients, of the remedial agents used, and how they use them. Reports of single cases are desired as well as records of a series. Failures are sometimes as helpful as successes, though most physicians naturally prefer to know of the things that are likely to give them help.

We believe that this number will be one of the best that we have ever produced. For some time we have been collecting material for it, but we shall be able to use considerably more. Readers of CLINICAL MEDICINE are therefore urged to send in brief articles, and to do it at once, as the time remaining is very short. Directness, conciseness and helpfulness are the main things to be considered. Though we naturally prefer nicely typewritten manuscript, prepared in acceptable literary form, this is by no means essen-

tial. If you have not cultivated the graces of "style", never mind. It is the story you can tell rather than how you tell it that counts most. We will "edit" so that it will be readable.

Doctor, this is a good opportunity for you to pay the debt that you owe CLINICAL MEDICINE. If it has helped you half as much as you say it has, the subscription price is only a part of your obligation—the smallest part. Help others!

Ye are better than all the ballads
That ever were sung or said;
For ye are living poems
And all the rest are dead.
—H. W. Longfellow

THE SALE OF EMMENAGOGS

In an article attacking the dispensing doctor, quoted elsewhere in this number, Dr. Christopher Koch, vice-president of the Pennsylvania Pharmaceutical Examining Board, uses as one of the arguments in favor of legislative suppression of the physician's dispensing privilege the following:

"The chances for abuse of the doctor's immunity from supervision are by no means wholly neglected. I need mention only one notorious abuse, that of emmenagogs. Numbers of doctors buy emmenagog tablets, used for the purposes of averting birth, in 5000 and 10,000 lots."

There undoubtedly are doctors (and we are sorry that this is true) who buy these alleged-to-be abortifacient agents, but the vast majority of the medical profession neither uses them nor countenances their use. They deserve the most unstinting condemnation, and the physician giving them for the purpose of "averting birth" is worthy of the severest censure. While most pharmaceutical manufacturing houses supply them, we know of *one*, whose business is largely with physicians direct, which will neither make them nor sell them.

On the other hand, any woman in trouble can obtain emmenagog pills or tablets from almost any drugstore in the country—*without a prescription*. This is a notorious fact. A well-known brand of pennyroyal pills, for example, is sold by druggists practically everywhere, and everybody knows what they are for.

"People who live in glass houses—!"

ARE YOU REALLY EDUCATED?

Many a man thinks that he is reasonably well educated, when he isn't. Coming down to actual facts, take up any special subject, and you can quickly convince him of his general ignorance and the shallowness of his knowledge.

Take for instance the subject of fleas. Doctor, probably you think you know something about fleas. But *do* you? Do you know how high or far a flea can jump? Whether a female flea can jump farther and higher than can a male? Whether a California flea can jump farther than the fleas of the effete East? Whether a flea can walk up the inside of a glass jar? How many fleas can be found on a guinea-pig, dog or cat? Whether meat placed on a piece of sticky fly paper attracts fleas or not? Whether fleas cohabit, and the female lays eggs if they are prevented from sucking blood? How many eggs the female lays? How long a flea lives? How long it is before the eggs hatch? How the flea gets out of its shell? The influence of temperature on the development of the infant flea? How fleas react to light? Whether fleas hibernate, and why fleas swarm in unoccupied houses?

These and many other facts concerning the jumping champions are to be found in a pamphlet by M. D. Mitzmain, in Public Health Bulletin, No. 38. Possibly you may say you are not interested in fleas. But you ought to be, for many of these little pests have in their mandibles death to the human being.

CLIMATE AND CONSUMPTION

In *Public Health Bulletin* No. 35, S. G. Smith takes up the relation of climate to the treatment of pulmonary tuberculosis. His conclusions are those which we have advocated for twenty years, that proper treatment by skilful physicians is worth more than any

climate, and that no climate in itself is curative of consumption or renders the tubercle bacillus inert.

The best climate for a patient is usually that in which he has to live. Take a Creole from the South and send him to Minnesota, and he will die. Take an Eskimo to the tropics, and he will die, in each case more certainly and quickly than if he remained in the climate to which he was accustomed.

Acknowledging all this, however, there is this in climate, that that locality which enables the patient to realize most nearly the ideal of an outdoor life is the one in which he or she will do best.

To some extent the question of climate may be settled by an investigation of concomitant circumstances, or diseases to which the patient may be liable. There are many contraindications to high altitudes. They are inadvisable for persons of low vitality and poor circulation; the old or middle-aged with declining powers of reproduction; the erethitic, the neurotic or irritable; those with acutely progressive disease, or who cannot attain temporary arrest at home; far-advanced cases with much destruction of lung-tissue, resulting in dyspnea, including the fibroid type, with dilatation and nervous derangement of the heart and certain forms of uncompensated valvular disease; and those with diabetes, nephritis, or other incurable organic maladies by which their days are already numbered.

Don't let yourself be hoodooed into the idea that money's a bad thing or that it's not in accordance with the highest ethics to love it. Don't talk about "filthy lucre;" don't say you don't care about money; don't suspect every rich man you meet. In other words, don't in any way decry the worth of money.—Katherine Quinn.

HEREDITY AND TUBERCULOSIS

The meeting of the Chicago Medical Society of May fourth was devoted to the consideration of heredity factors in syphilis, tuberculosis and cancer. Dr. H. J. Achard read a paper on the influence of heredity in tuberculosis, and after an extensive study of the question he formulated the following conclusions:

1. Weismann, Martius and others have shown that the "hereditary substance" is contained in the paternal and maternal germ-cells, the union of which produces the growing fetus, and that after this union hereditary influences can no longer be active. Since pathological germ-cells could not produce a viable fetus, diseases as such cannot be transmitted by heredity. Therefore tuberculosis is never inherited as disease; it may, however, be transmitted potentially, i. e., as a predisposition.

2. The predisposition which may be transmitted from tuberculous parents to their offspring may be general, i. e., may consist in a general "vulnerability of cells" (Virchow); or it may be specific—anaphylaxis (Courmont, Rosenau and Anderson, etc.). Such a specific predisposition is probably qualified by a likewise inherited specific resistance to the action of tubercle bacilli and their products.

3. Congenital tuberculosis occurs, although rarely. It is not inherited, but depends upon an intrauterine infection. Germinal infection, while theoretically possible, has never been shown to occur. Intrauterine infection occurs by way of the placenta and can only take place when the placenta is pathologically changed.

4. Congenital tuberculosis is only observed in infants of women with advanced phthisis, the mothers in all cases on record having died soon after delivery.

5. Infants with congenital tuberculosis always succumb to the disease in the first weeks, or at most months, of extrauterine life, because the infantile organism is entirely nonresistant to the action of tubercle bacilli.

6. An intrauterine tuberculous infection leading to congenital *latent* tuberculosis does not occur and the assertion of Baumgarten that this is the most frequent mode of origin of tuberculosis is not in accord with known pathologic and pathogenic facts.

It appears, therefore, that against the old-established popular belief, which is still shared by many physicians, heredity has nothing to do with the transmission of tuberculous disease as such, and that any

impairment of resistance, any predisposition to tuberculosis that may have been produced in the children by parental consumption, is mitigated by a degree of specific resistance or immunity.

That such an immunity to infectious diseases is actually developed and transmitted is demonstrated in the history of epidemics. As pointed out years ago by Rindfleisch, and more recently by Reibmayr, Effertz and others, the acute exanthemata were, in times gone by, far more virulent among Caucasians than they are today because the human organism opposed less resistance to them, and to this day aboriginal tribes are decimated by them to a frightful degree. There is evidence to show that tuberculosis was at one time a highly virulent acute disease and has become a chronic affection only through the resistance acquired in the course of centuries of exposure to its ravages by the white race. Other races still suffer from it in its acute forms.

It follows that the fact that a child has a tuberculous ancestry does not, *ipso facto*, doom him to the disease; and if, from sufficient exposure, he should acquire it, his tuberculous heredity does not render his own disease necessarily fatal; on the contrary, his chances are, if anything, a little better than those of consumptives with a nontubercullus heredity.

Dr. Karl Von Ruck (*American Journal of Medical Sciences*, August, 1907) has collected the literature pertaining to this phase of the subject and has shown that the indications favor the view that the mere fact of a tuberculous-family history being shown in an individual case will not diminish the patient's chances of recovery, and that we may thus not only comfort some of this class of patients and their friends, but, also, by removing their fears of being at a disadvantage or perhaps doomed to the same fate which had previously overtaken their parents and other relatives, cause them to make more determined and better-sustained efforts for their own recovery.

All this may appear to have more of an academic than a practical value, and yet it is of the highest importance. The world-wide crusade against the great white plague will not prosper and succeed so much through curing consumptives as through preventing consumption. If a condition of hypersusceptibility or a predisposition may be transmitted to the children of consumptives it behooves us to watch and care for such children, to remove them from the possibility and danger of exposure to infection, to increase their resistance against the action of the tubercle bacillus. And since a degree of specific resistance of immunity may be transmitted by a tuberculous mother to her child, it is incumbent upon us to increase the mother's immunity to the highest possible point and, if feasible, to produce a specific immunity in the child by appropriate measures.

Be not discouraged, brethren; the future will be better. Even now we are beginning to see hope in the near future. Yes, it really does look as if we can finish battleships and public buildings before it's time to discard them as useless.—Col. William C. Hunter.

AMEBIASIS AND ITS TREATMENT

Prof. Allen, of Charlotte, N. C., in *The Medical Record*, publishes some interesting studies of forty-two cases of amebiasis. He asks whether all amebæ are pathogenic.

Taking a number of persons who were supposed to be in good health, and yet whose stools contained amebæ, he found that not one of these could be considered normal, they not being able to produce a formed stool excepting a day or so following a purge, or three or four spontaneous movements in a single day, which were invariably attributed to errors in diet. The stools were alkaline. They generally had a moderate eosinophilia and were to some degree neurasthenic.

Out of the 42 cases 12 died, a mortality of 28 percent. Sixteen gave no history of frequent bowel movement, 10 had bald tongue, indistinguishable from that of pellagra. Of 25 cases in which the hemoglobin was estimated, in 6 it was about 80 percent, and in 19 below this, in one below 10 percent. Anemia seemed as constant and as severe as in ankylostomiasis. "The presence of moderate eosinophilia has repeatedly directed

our attention to the intestinal tract, when amebæ were found in the stools. Out of 29 cases where differential counts were made, 14 showed eosinophilia of 5 percent or over, 2 between 4 and 5 percent, and 11 below 4 percent." One case complicated by lumbricoides showed 17 percent, and one with hookworm showed 5.2 percent. In one case of combined amebiasis and hookworm, the removal of the latter caused the eosinophilia to drop from 10 percent to 5 in eight months. Amebæ can be grown in alkaline bouillon. In 14 cases the stools showed 10 to be alkaline, 2 neutral, and 2 acid, as tested with litmus. Out of 35 cases, trichomonas vaginalis was present in 19.

In 3 cases abscess of the liver was diagnosed, one of which was proved at the autopsy. Testing various proposed remedies on the ameba under the microscope, the action of quinine sulphate up to 1 in 1000, and of powdered ipecac in solution with sodium bicarbonate, was slow and uncertain. After treatment with ipecac motion reappeared in forty-five minutes. The action of citric acid was also slow and uncertain. The action of coal-oil he was unable to determine as it would not mix either with stools or with bouillon. Rochelle salt in 5-percent solution stopped motility sooner than any of the preceding reagents; partly due to its acidity, partly to its desiccating effect. Magnesium sulphate in strong solution not only instantly stopped all motion on the part of the amebæ but desiccated and shriveled them beyond recognition. Whether they can be resuscitated again with normal salt solution, he has been unable to determine. A number of cases were irrigated daily with a gallon of 8-percent magnesium sulphate, but no special advantage was derived. On applying the solution to the amebæ, motility finally ceased only in 25- to 30-percent solution, and considerable stronger ones were required for instantaneous desiccation. Magnesium sulphate does not irritate the bowel, but whether strong-enough solution can be introduced to destroy the amebæ without injuring the membrane remains to be seen. Ipecac given in 30- to 60-grain doses daily for two weeks in eight cases did not seem to influence the clinical course of these cases, except to set up diarrhea sometimes.

This confirms our own view, that ipecacuanha is not a suitable remedy for the amebic form of dysentery, but that its efficacy is confined to the bacillary form of that disease. On the other hand, we have found in those cases of amebiasis which we have studied, that the sulphocarbolates prove more effective than any other remedy which we have as yet tried. Nevertheless we have the high authority of Manson in favor of the ipecac treatment for amebiasis. Our impression is that copper sulphocarbolate would be well worth an extensive trial in the treatment of this malady.

Clothes don't make a man, but they sometimes allow an ass to masquerade as one.

RENAL PAIN

The encountering of pain in the region of the kidney is discussed from the clinical point by Cathelin, in *Le Monde Medical.*

Half the patients who complain of renal pain are arthritic or nervous, the kidney being unaffected. There is no tenderness developed by palpation, no tumor deep in the hypochondria; the patient on rising is unable to button or lace his shoes, or pick up anything, and the urine is clear when passed. Even when one kidney is really the seat of disease, the pain may be located in the other. Hence it is especially necessary to consider the pain only as associated with other symptoms. First of these is the presence of a tumor.

(A) If there is no tumor, we look to the bladder, and search for pyuria and hematuria.

1. Renal tuberculosis nearly always begins with cystitis. Of all renal maladies this is attended by the least pain, and hence the early nephrectomy that offers the best chance of cure is rarely done. The malady is to be suspected when a young person who never had gonorrhea begins to show pyuria and possibly a little blood with frequent urination and the cervical syndrome. There is sometimes pain in the neck of the

bladder. There may be found tubercle bacilli in the urine or the cavity may be inoculated. The diagnosis may only be inferred from the general state.

2. Pyuria without cystitis, with or without hematuria, points to renal calculus. The presence of gravel indicates an infective lithiasis amenable to lithia; its absence an infective calculosis demanding surgical intervention—nephrolithotomy or posterior pyelotomy. The pain here is induced by walking or other movement. It may be referred to the neck of the bladder, without tuberculosis. Radiography completes the diagnosis.

3. Hematuria without cystitis or pyuria is rare, but may mean thoracic cancer growing principally from the upper part; hematuric nephritis, single or double; pyelic papilloma or angioma; or renal congestion, the pain due to intrarenal tension and pressure. If the fluxions are frequent, renal hypertrophy results and the kidney may be felt beneath the false ribs. There may also be an aseptic calculosis, dating from childhood and disclosed by radiography.

(B) Pain may exist with a tumor the nature of which must be ascertained.

1. Pus and cystitis, with or without hematuria. The pain may be violent, renal or tension colic, but not calculous, and suggests infective hydronephrosis. Periodic discharges are significant, as the attacks subside; the urine clear at times, at others turbid.

2. When there is neither pus, blood nor cystitis, the diagnosis lies between aseptic hydronephrosis and floating kidney, with little or no retention of urine. The pain is due to distention of the renal pelvis or to traction. Glenard's procedure, filling, contention and escape, confirms the latter. A very long pedicle may allow the kidney to drift into the iliac fossa, where the characteristic sensation may be elicited.

3. Hematuria, with neither pus nor cystitis, spontaneous, at night or on awaking, means renal cancer. Cystoscopy shows which kidney is affected.

In polycystic kidney both glands develop into tumors. Hydatids baffle us unless they discharge cysts or hooklets.

True renal disease may induce pain referred to other parts, as the funicular pain in lithiasis, that caused by rectal or vaginal pressure over the ureteral meatus, the pains of specific renopyelitic inflammation, and that of tuberculosis.

Evidently the simple fact of pain in the renal region has little significance without a study of the concomitants. The patient's temperament may induce him to exaggerate the suffering.

A STUDY OF SHOCK

Henderson, of Yale University, has been investigating shock, and these are his conclusions:

The essential conditions are paresis of the venous coats, with lack of carbon dioxide in the blood, and hyperoxidation. The low vascular tension improves vastly when physiologic salt solution, impregnated with carbon dioxide, is injected into the veins, and this is far ahead of the transfusion of the saline liquor without the gas, as it also is ahead of the medicinal cardiac stimulants and vasoconstrictors. Under this hypothesis ether is more likely than chloroform to induce shock, the former being a respiratory stimulant and causing rapid respiration, eliminating the carbon dioxide and increasing the oxygen. In abdominal operations, where the intestines are exposed to the air, their coats are paralyzed by the loss of carbon dioxide and the access of superfluous oxygen. Warm moist applications predispose to such paralysis, and the intestines should be protected against the access of air. His deductions are as follows:

1. Severe pain should be prevented by a sufficiency of narcotic.

2. Anesthesia should be complete, before and during operation.

3. In abdominal operations, moist warm cloths should *not* be applied to the intestines, and except in the operative field these should be protected from the air.

4. A tank of carbon dioxide should be at hand to perfuse through warm water to be directed into the abdominal cavity on the appearance of shock.

5. For shock, transfuse into the blood a saline solution containing carbon dioxide, and let the patient inhale air or oxygen with a moderate amount of carbon dioxide.

6. If pain is at all likely to follow subsidence of the anesthesia, prevent it by injections of morphine.

7. Large doses of strychinne are to be avoided.

8. Digitalis is rarely if ever indicated here.

To this the editor of the Therapeutics of *The Journal of the American Medical Association* adds that Henderson's observations further indicate that atropine as a respiratory stimulant and vasoconstrictor would seem contraindicated in shock. The same applies to epinephrin and to glonoin. Alcohol would seem to do harm. Camphor as a cerebral stimulant and incitor of metabolic activity would seem indicated, and may be given in oil hypodermically. Ergot requires further study to explain the benefit following its subcutaneous injection in shock and circulatory depression.

The objections to atropine are based on its supposed power of elevating vascular tension. It will eventually be found that its principal vasomotor influence lies in actively dilating the capillaries, by stimulating their vasodilator apparatus. The determination of blood to the brain by glonoin is also an active and not a passive condition. These two, with moderate doses of strychnine, constitute the rational treatment of shock by drugs.

The assertions of Henderson as to the lack of carbon dioxide and the excess of oxygen throw a curious light on those who have been urging the inhalation of oxygen in such conditions. We remain a bit skeptical, and shall await further developments. Too often subsequent observers detect errors in technic or in conditions that detract from the exactness of one's conclusions and sometimes even directly contravene them.

NERVES IN CHILDREN

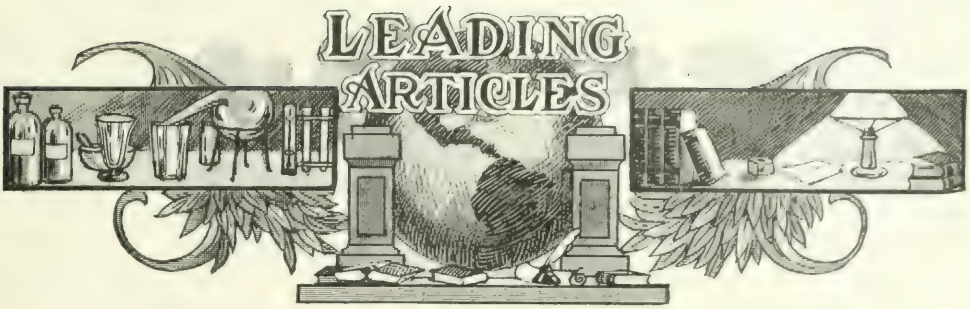
A nice old English lady, hearing an American child spoken of as nervous, said: "Nervous! Is there anything the matter with its mind?"

She was one of the class of comfortable, phlegmatic English women who accept the world as the Bible explains creation and religion as established by the English church, and who live and move and have their being with a placidity simply maddening to us Americans. Her babies were roly-poly, kitten-like creatures, tucked away through babyhood in quiet corners to stare at nothing, doze and breathe and squirm and grow. Nerves in a child to her could only mean grave derangement, probably mental, and in a certain sense she was right.

Childhood should be a period of healthy animalism. Simply to observe and absorb is enough in this electrical American atmosphere of ours until a child is seven years old. To teach him anything previously is a mistake. He has enough to do if he simply takes in his surroundings, and that is what every child does, and that is why a cow-like, uneducated (not illiterate or vulgar) nurse is often better for the first year of a child's life than its highly organized, nervous mother. Such a nurse has the same effect upon the child as the companionship of dumb animals, than which there is nothing better. It is an influence which soothes and amuses, does not disturb and is wholesome. After seven, however, when it is safe to develop the little mind, a nursery governess should be substituted for the servant; perhaps it may be wise earlier.

TUBERCLE BACILLI IN DUST

In order to show that spitting on the sidewalks is dangerous to health, an investigation has been made by Dr. John Robertson, medical health officer of Birmingham, England, which shows, said *The Medical Record* recently, that seven percent of the "spits" collected in public places contained tubercle bacilli. On the other hand, the dust collected from the floors of the cottages of the Adirondack Cottage Sanatorium has been found to be free from tuberculosis germs, proving that a careful consumptive is not dangerous.



Tuberculous Adenitis

Its Treatment by High-Frequency Currents

By WILLIAM BENHAM SNOW, M. D., New York City

EDITORIAL NOTE.—This paper, which was read before the New York Society of Radiology and Physical Therapeutics, April 29, 1910, contains ideas that are novel and suggestions that promise to be useful. The author shows that currents of this type may be used for the induction of hyperemia, found to be useful in localized tuberculosis, thus bringing this remedial agent into line with the principles advanced by Bier.

THE physician who advocates the use of electricity in any form before an average assembly of medical men is certain to be misjudged, if not misunderstood, because there is much that is technical, that most physicians either do not have the opportunity, or do not take the time, to investigate.

The electrical current as a remedial agent is a phenomenon of nature the various actions of which are most difficult to define and demonstrate, except as a means of inducing hyperemia, which is probably its most valuable effect and easy of demonstration.

Two Types of Currents

Technically considered, the high-frequency current is an alternating current of high voltage, or high potential, in which the rate of alternation, or oscillation, exceeds 10,000 per minute; at which rate, approximately, muscular or tissue contractions are not produced when an electrode is applied in contact with the surface of the body. From the rate stated, the frequency of oscillations can be made to go into the billions in the same period of time. If the current is not oscillatory, or alternating, in character, but pulsatory and unidirectional, we designate it as a current of high periodicity. These two types of currents are produced with the same apparatus under different conditions. However, in their mode of action they are much the same in their local effect upon the tissues. Considerable uncertainty as to the character and quality of action of the high-potential currents exists in the minds of those who employ them empirically. High-frequency currents are produced with static machines, coils, and the Tessla apparatus, in connection with resonators.

In all modern apparatus amperage, or volume, potential and frequency are under practical control, so that the conditions may be varied to the effects desired. The arrangement for the induction of a high-frequency current is practically the same both with static machines and coils.

The d'Arsonval current, the most useful and practical of the high-potential currents, is produced by the arrangement shown in Fig. 1.

This current is a two-pole current—one in which the two terminals employed are

applied to the patient either directly or indirectly. The term two-pole is used in

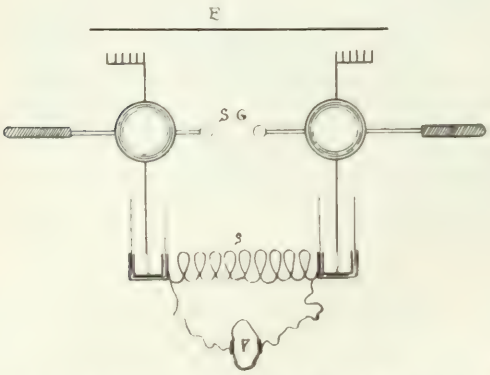


Fig. 1. D'Arsonval Current as derived from a static machine. E.—Revolving plate. S. G.—Spark gap. S.—Solenoid. P.—Patient in position.

contradistinction to the Oudan current, which is administered from one terminal of the apparatus.

The two-pole is the high-frequency current of relatively the largest amperage and is employed locally for the induction of hyperemia, either by the direct or indirect method, and is, in my experience, the choice of currents for the induction of that effect, because of the greater amperage and consequently the greater heat induced in the tissues. As the tissues become heated there is an increased flow of blood to the part and hyperemia is induced in order to maintain a normal temperature throughout by the medium of convection; the circulating blood becoming heated as it passes through the heated tissues while the cooler stream flowing in tends to preserve the normal temperature in the part through which the current is passing. In this way hyperemia is produced by the heat induced without detriment to the cell structures.

The indirect d'Arsonval current is employed for this purpose with the patient seated upon the cushion of the autocondensation couch, as provided with the long metal beneath the cushion connected to one side of the d'Arsonval apparatus, while the application is made preferably with a vacuum electrode, to the part in which it is sought to induce local hyperemia; the greater current condensation being always at the part or region where the contact is made, the tissues in their immediate vicinity soon becoming highly vascularized.

The direct d'Arsonval current often is more practical for treatment of large or remote organs or tissues in which the induction of hyperemia is indicated, because the current is thus confined to the path between the electrodes, thereby producing more heat and hyperemia in the involved tissues. By this

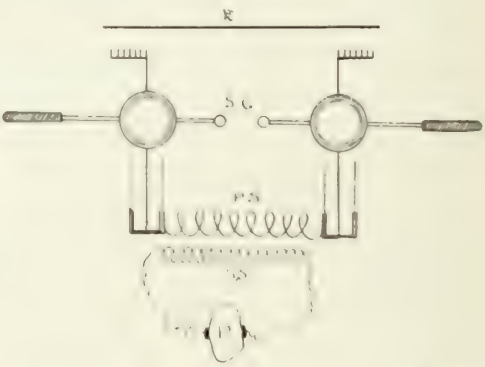


Fig. 2. Tesla Current. E.—Static revolving plate. S. G.—Spark gap. P. S.—Primary solenoid. S. S.—Secondary solenoid. P.—Patient in circuit.

method application may be made by placing a metal or glass vacuum-electrode upon one side, and a metal electrode upon the opposite side of the part to be treated in which it is sought to produce the hyperemia. This is a practical method of inducing hyperemia and cellular activity with a local increase of oxyhemoglobin—two important effects for the treatment of tubercular adenitis and of other conditions of inflammation due to local infection.

Bier and his school, following the methods of Junod (published in France in 1875, in his work entitled "Haemospasia"), have said much concerning hyperemia in the treatment of inflammation; but in no work so far reviewed by the writer has any special reference been made to the increased function or presence of the phagocytes as a matter of importance in connection with such hyperemia, for the purpose of eliminating the infection, which is the local cause of the inflammation.

Hyperemia as a therapeutic measure in the treatment of infection, in connection

with an inhibitory action effected upon the germs present, attributable to the actinic and other antiseptic action of the current, together with the increase of oxyhemo-

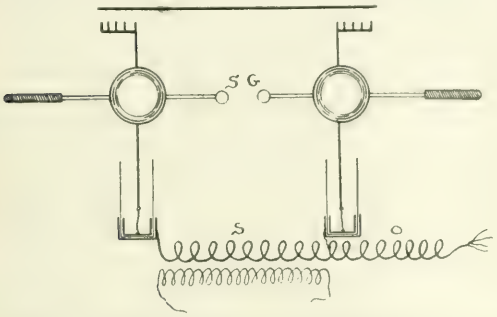


Fig. 3. Oudan Current. S. G.—Spark gap. S.—Solenoid. O.—Oudan extension of solenoid.

globin in the tissues, are the active principles upon which depend the employment of currents of high frequency and high potential in the treatment of tubercular adenitis.

A comparison with other methods of inducing hyperemia and otherwise affecting the tubercle bacilli will indicate their employment as congeners, principles or accessories in connection with this method of treatment.

Artificial Lymphocytosis and Tuberculosis

Lately the writer's attention has been called to a new discovery recently published by Dr. G. B. Webb of Colorado Springs, Colo.,* based upon careful observations made by him, in which he has demonstrated that the lymphocytes are the bodies which are particularly active in destroying the tubercle bacilli. He has demonstrated that whenever a polymorphonuclear leukocyte attacks and envelops a tubercle bacillus, that it in turn is taken up by the lymphocyte; and that a lymphocyte is particularly adapted to destroy the waxy body of the tubercle bacillus. The lymphocyte originates in one of two ways, namely, (1) in the blood itself, and (2) they develop and proliferate in the tissues, as shown by Schridde and Adami.

Dr. Webb has also demonstrated that by girdling the extremities and thereby flushing the bone-marrow, where the lymphocytes are principally originated, and by obstructing the return circulation, he is enabled to increase the lymphocytosis from 15 to 75 percent. If this effect is verified, the method of girdling the extremities as recommended by Bier will have another significance; not only for treating the local tubercular joint inflammation, but upon the tuberculous processes everywhere.

Webb also accounts for the advantages of high altitudes for tuberculous patients by its influence upon lymphocytosis. A comparison was made as to the lymphocytosis of 18 healthy Harvard University students, with 18 students in the Colorado University, and the percentage of lymphocytes in the blood were found to be from 15 to 30 percent greater in the students living in the higher altitudes.

If Dr. Webb's discovery is accepted or confirmed, it will lead to a better understanding of how to treat tubercular processes, local and general; the importance of high altitudes; and will also popularize the method of girdling the lower extremities high up on the thigh instead of, as by Bier's method, just above the knees. Otherwise the method would have the objection of rendering the blood in the regions below the bandage venous to a degree or low in its percentage of oxyhemoglobin, conditions unfavorable to a positive chemotaxis.

Counterirritation, the term so often employed in connection with the treatment of inflammation by whatever means produced, has an added significance in connection with the recognition of the fact that with increase of hyperemia there is an increased local phagocytosis.

Cupping as a method of inducing local hyperemia, if employed too rigorously, has the objection of danger of forcible separation of the tissues, and it does not add any element of inhibitory effect to the process.

Forms of Radiant Energy

Radiant energy, if employed by the administration of radiant light and heat to the tissues, by the conversion of radiant energy into heat-units, so far as it penetrates into the tissues, by the action of heat within the

* "Artificial Lymphocytosis as a Possible Aid in the Treatment of Tuberculosis." *Colorado Medicine*, January, 1910.

tissues, induces an increased blood supply for the purpose of cooling by convection, as previously stated with reference to the heating by the d'Arsonval current. Radiant light and heat seem still further to inhibit the activity of local germ processes, probably facilitating their destruction by the phagocytes. The effect of radiant light is to increase the oxyhemoglobin in the tissues, thereby rendering the conditions favorable to a positive chemotaxis. This effect of radiant light is conceded by all who are familiar with the subject. Radiant light and heat therefore are some of the most important congeners and active means of destroying local infection.

The radiation of the Rœntgen-ray induces another effect upon the tissues, tending to lessen hyperemia, but effecting a degree of inertia or inactivity, both of the germ-life and of the tissues irradiated. If employed for a sufficient length of time to destroy a germ-process (which it does effectually), the local tissues are rendered more or less inactive. Whereas, if employed energetically for a few exposures prior to the application of agents which produce local hyperemia, it induces an inhibitory effect upon the germ-life; while the fresh phagocytes that are brought to the tissues when hyperemia is induced, after the Roentgen-ray has been discontinued, permit an active phagocytosis with probably greater destruction of the germs than if it had not preceded the hyperemia.

It is this combined method that seems most practical and proves most efficient in the writer's experience in the treatment of tuberculous adenitis and other local infections. This is attributed to the stimulating effects of light and heat and the high-frequency currents, which restore the normal tone to the tissues following the ray and at the same time by nature's own means rid them of the bacilli.

The High-Frequency Method

The high-frequency method, as employed in the treatment of local infection and tuberculous adenitis, may be employed by the bipolar, direct or indirect d'Arsonval methods, by the Tessla or by the unipolar Oudan current. The unipolar Oudan current, while unipolar in name, is practically the same as the indirect d'Arsonval current. The local condensation of the current is greatest where the skin or mucous membrane is in contact with the electrode, diverging outward to the surface of the patient.

By all variations of current, the effect sought is the induction of a large degree of hyperemia, not alone as the effect of the local irritation, but also extending throughout the structures of the infected part. In tuberculous adenitis the action of any of these high-frequency currents is generally sufficiently diffused to vascularize the whole substance of the glands, the affection being comparatively superficial and not extensive.

The direct d'Arsonval current is employed either with a large metal electrode directly applied to a large surface of the body (under an anesthetic), when it is desired to use currents of very large amperage for the local destruction of a malignant process, or by the use of a small metallic or vacuum electrode directly opposite the affected part over which the operating vacuum-electrode is to be applied for the purpose of inducing profound hyperemia. It is an entirely practicable and efficient method of employing the high-frequency current for this purpose.

Advantages of the d'Arsonval Current

If the current is employed in this manner, the time necessary to get the effect will depend upon the intensity of application which can be tolerated by the patient. It will never be necessary to continue the application to the extent of destroying or blistering the overlying skin. The applications, to be effective, should be made at least daily in order that the hyperemia may be maintained constantly in the tissues at the seat of infection.

No hyperemia, except that produced by the objectionable blister and actual cautery, which is very superficial, will persist for so long a time as the hyperemia induced by the electrical discharges which give little or no subsequent discomfort.

In addition to the hyperemia, the high-frequency currents produce, as previously

stated, local actinic effects due to emanations (which are demonstrable by willimite or platinobarium cyanide) as well as antiseptic effects, when brought into proximity with the discharges from the vacuum-tube. It is a misnomer, however, to call the emanation from a vacuum-electrode "violet rays"—one of the most unscientific expressions which has crept into medical literature, signifying as it does, that these actinic qualities are the important qualities, the qualities *par excellence*, of the electrical discharges, thereby forestalling or disguising the important effects of the electrical discharges.

That the actinic effects influence the germs other than by increasing the percentage of oxyhemoglobin in the blood is very doubtful, since they affect only the most superficial layers of the skin; but they are beneficial, unquestionably, together with the other antiseptic effects, in the treatment of lupus vulgaris, as demonstrated by the use of the ultraviolet rays by that eminent Dane, now dead, Dr. Niels Finsen.

The directly inhibitory effects on the germs of this current are probably due to the intense vibration induced in the tissues by the passing in and out of the electrical discharges, which probably also arrests the activities of the phagocytes during the period of application; but the fresh phagocytes passing in larger numbers into the hyperemic area, during the intervals between treatments, are undoubtedly afforded an advantage; because they are constantly coming into the field while the germs are temporarily in a state of inhibition.

The success of this method of treatment in all types of localized infection is verified over and over again in the hands of those who employ them intelligently; and, as suggested, when employed in connection with the other measures—radiant light and heat and the Roentgen-ray—with attention to everything which contributes to the health, nutrition and hygiene of the individual, the high-frequency currents are a valuable addition to the means of treating tuberculous adenitis.

Injuries to the Bones of the Hand

With Simple Directions for Their Treatment

By RALPH ST. JOHN PERRY, M. D., Farmington, Minnesota

EDITORIAL NOTE.—This is the second paper in Dr. Perry's series on "Injuries of the Hand." This month he discusses periostitis, acute and chronic, following bruises or other traumatisms, osteitis and osteomyelitis, caries and necrosis, epiphysitis aud fractures of the different bones of the hand. The treatment is simple, within the means of every physician, and the apparatus described inexpensive as well as effective.

SOME *bruises* invariably result in inflammatory troubles, due directly to the traumatism or because some latent disease is aroused and adopts the point of injury as the site for its manifestations.

Periostitis presents variable symptoms and sometimes is difficult to diagnose if the exciting cause be remote or so trivial as to escape the memory. The typical indications are deep-seated, aching pain which is worse at night, circumscribed swelling, occasional redness of overlying tissues, heat, and fluctuation if pus be present. The treatment consists in the application of counterirritants, hot kaolin poultices or pounded ice (whichever is most agreeable in its effects); if pus forms, open freely and cleanse. One of the best counterirritants I have ever used in these cases is the following:

Counterirritating Plaster

Tar, purified	ozs. 2
Oil of turpentine	dr. 1
Burgundy pitch	dr. 1
Resin	drs. 2

Melt together, then incorporate:
Mandrake root, powdered.....dr. 1
Poke root, powdered .....dr. 1
Indian-turnip root, powdered. ....dr. 1
Label: Apply as a plaster, spread on cloth.

This plaster should be renewed daily. It will make a sore, which, however, should *not* be washed but mopped clean with dry cotton.

Bones Bruised in an Injury

Case 1. Mechanic. Finger caught in a machine and bones bruised; family physician unable to secure abatement of the symptoms. When seen ten days after the injury, the surgeon found evidence of periostitis with possible necrosis and proposed to open the finger, release the pus, relieve tension, and shell out the necrosed bone, if found. The patient refused consent and the surgeon withdrew from the case. The patient came again some days later and the conditions were found the same, no worse. He applied the above counterirritating plaster and in a few hours the painful symptoms had subsided. Pus, if present, was either absorbed or discharged through the sore created by the plaster. In one week all symptoms had disappeared and the patient was back at his work.

It is possible that the symptoms were about ready to subside when the patient came the second time for treatment, although the treatment during the interim had been only simple salves. I believe the time of the healing could have been shortened by the incision though no better result would have been obtained.

Potassium iodide is a good internal remedy in these conditions, but my best results have been in cases in which phosphorus in minute doses (gr. 1-1000) was administered. A *chronic periostitis* of long standing may result in the formation of subperiosteal bony plates or nodules or a thickening of the bone itself, especially in syphilitics (Fig. 1); in tubercular subjects these may develop a swelling made up of granulation from carious bone-tissue.

Case 2. Merchant. Some months prior to consulting the surgeon he had bruised his hand in some way not remembered; the first intimation of trouble being a deep-seated pain over the metacarpal of the middle finger, which seemed to bother more at night. Later came some redness, a slight tenderness to the touch, but no marked swelling. At times, if the hand was used much in rough work, there would be a noticeable swelling

Fig. 1. Syphilitic enlargement of phalanx

with increased pain and redness, but these exacerbations would subside in a day or two upon the application of a liniment or a "magnetic" salve. Palpation conveyed the sensation of an enlarged bone and an x-ray examination showed an irregular enlargement of the third metacarpal bone. Subperiosteal plates or nodules were suspected, and upon opening up the periosteum several small plates were removed.

The benumbed bone was curetted, dusted with iodoform, the periosteum was replaced and an iodoform dressing applied. The wound was similarly dressed daily until healed, a matter of some ten days. This patient presented no history of syphilis or

tuberculosis, was well nourished and in excellent health, hence his rapid recovery.

Osteitis and Oeteomyelitis

In *osteitis* the symptoms are similar to those of periostitis and the treatment is the same.

Osteomyelitis may develop following a bruise, the injury affording a focus for and inciting to activity the latent germs. This is especially true in persons of tuberculous tendencies. The treatment is immediate and free incision, clear to the medullary canal if necessary. Acute constitutional symptoms can be met as they arise, and all patients should be put upon a tonic treatment, antituberculous if indicated, and given phosphorus internally.

Case 3. Boy, aged 7 years; Norwegian ancestry. One day, while at play, he suddenly complained of pain in the back of his hand, which grew rapidly worse and the hand became much swollen. When seen thirty-six hours later by the surgeon there was evidence of pus and on incision about four ounces was evacuated. Upon washing out the cavity there was exposed the necrotic seat of an osteomyelitic infection. The periosteum was dissected loose, the involved bone curetted away, the bone cavity swabbed with pure carbolic acid followed by alcohol, filled with Von Mosetig's bone-filling and then the skin wound loosely approximated by adhesive-plaster lacings. Internally the boy was given tonics, codliver oil and phosphorus. A satisfactory recovery followed, and now, some years after, the hand is strong and developing normally.

Caries and Necrosis

Caries and necrosis can, and often do, follow any of the inflammatory diseases of the bones. The diseased or dead bone can be thoroughly removed by curette and chisel, care being exercised not to destroy the periosteum more than necessary or to loosen it from healthy bone. In using instruments special care must be exercised lest the bone be fractured. Make as few digital examinations as possible as these tend to break down blood-vessels, loosen the periosteum and spread infection.

A method which in my practice has proved much more satisfactory than using currettes, chisels and gouges is that of using phosphorus in very minute quantities (gr. 1-1000) and patience in large quantities. The old method of cleaning out diseased bone by instruments often proved troublesome because no replacements of the eliminated bone took place; new bone did not always grow as expected, the bone was weakened and the entire limb deprived of strength.

Under the phosphorus treatment it was noticed, in cases where the periosteum was opened and the wound freely drained and kept drained, that the recovery was rapid and the results satisfactory; bone-tissue which was apparently lost regained its vitality and survived the disease, or in the worst cases recovered to such an extent that only a small portion necrosed and had to be removed. It was also noticed that where the diseased bone was left in place there rapidly developed between this portion and the periosteum a new growth, an involucrum, which in course of time became capable of assuming the responsibilities of the diseased bone where this latter was removed. Eventually this involucrum enlarged, by fresh growth, until it more or less entirely replaced the bone which had been taken out.

Medication in Chronic Caries or Necrosis

Many acute cases, lacking proper treatment, develop a chronic condition from which after weeks or months sequestra may be removed, and in these the new bone growth rapidly replaces the dead bone, restoring the shape, strength and function to normal conditions or nearly so. It was also noticed that when the patient was given phosphorus, placed on a nourishing diet and allowed plenty of sunshine and fresh air, recovery was much more rapid than otherwise. Recently, in connection with the phosphorus treatment, there have been used applications of vaseline and bismuth subnitrate, a combination which had proved unusually successful, especially in those of a tubercular nature. Surgeons today who consider the best interests of their patients are in no hurry to remove dead bone, the

satisfactory results following the treatment just outlined more than compensating for the extra time and effort involved.

Because of the importance to its utility of the bones of the hand, every effort should be made in all operations to preserve as much periosteum and healthy bone as possible, and subsequently special effort to effect a regeneration of the lost bone. Bone growth takes place both from the periosteum and the medullary-canal contents, and it has been demonstrated clinically that phosphorus will materially aid in the process; hence it is well to give calcium hypophosphite (possibly with other tonic hypophophites) as a part of the regular course of treatment. Plenty of good, plain nourishing food, with outdoor living and exercise, fresh air and sunshine, will do wonders in some cases and prove beneficial in all.

Bone grafting can be resorted to where there is such great loss of substance as to endanger the functional value of the bone; small bits of decalcified bone being implanted under the periosteum or in the medullary canal, or if an opportunity should afford, pieces of healthy bone fresh from another person may be utilized. Sluggish, indolent granulations can be stimulated and the poorly nourished can be fed artificially, while the exuberant must be held in restraint or removed entirely. These are matters which must be determined in each individual case by the surgeon in charge; the *modus operandi* will be found described in the chapter on "After-treatment."

Necrosis of the Bones of the Hand

Case 4. Merchant. The man came seeking relief from a "running sore" on the back of the hand of several months' standing. The external appearance of the sore aroused suspicion of necrosed bone, which suspicions were confirmed by examination, the x-ray showing quite a considerable involvement of the third and fourth metacarpals. The exciting cause was unknown; there was no history of syphilis or tuberculosis.

The patient preferred not to have a disabling operation performed as he could not at the time absent himself from his business. The sinus was washed with mercuric-cyanide solution, injected with aristol emulsion (thymol iodide in oil), and the patient put on the phosphorus treatment. Dressing and aristol injections were repeated daily, with marked improvement during the first week. During the second week the sinus was injected with iodoform emulsion and dressed with gauze dampened with compound tincture of benzoin, which acted as a deodorizer. The hand continued to improve, and the iodoform and phosphorus were kept up until full recovery was secured in five weeks.

Case 5. Farm hand, Norwegian. This man came with a discharging sore on the back of the hand, necrosed bone being discovered at the bottom. The sinus was cleansed with warm mercuric-cyanide solution and injected with a mixture of bismuth subnitrate and vaseline, these being repeated every other day for about ten days, when there was, apparently, perfect healing.

Should there be much loss of the skin overlying the diseased bone, or should there be cicatricial tissue in an old case, it is best to remove all unhealthy tissue growth and all cicatricial tissue and to transplant a flap of healthy skin from the forearm, abdomen or elsewhere, to cover the defect. Extensive scar-tissue over a bone, especially if attached to the bone, makes trouble in years to come. Every slight traumatism causes ulceration and endangers the vitality of the regenerated bone, ankylosis of joints may develop, atrophy of the parts may follow, disturbances of circulation and nutrition manifest themselves, and the cicatrix often contracts, causing deformity, disfigurement and disability.

Epiphysitis and Epiphyseal Separations

Epiphysitis may follow injuries to the hand in children, starting as an acute inflammation at the ossifying center and spreading rapidly to the adjacent joint where there soon is established an extensive abscess. These cases should be watched carefully and treated radically, as a pyemia may ensue which the child has not the power to resist, and a fatal traumatism may result. The proper treatment is free incision and drainage, with

nourishing food, and phosphorus as a remedy.

Epiphyseal separations occasionally are met with in children where a tearing or pulling force has been exerted, as where the hand has been caught in machinery revolving or moving away from the child, or where an effort has been made to extricate a hand held firmly in the grasp of a machine, another's hand, or between or under any fixed object. Fortunately these injuries are rare because of the stringent laws governing child labor. In appearance they resemble dislocations, especially in the phalanges, though they are more difficult to reduce and show a tendency to recur. An x-ray examination will definitely settle the diagnosis.

The treatment consists in reduction and the application of a retention dressing, either splints or several layers of adhesive plaster, which will immobilize the injured bone until union is secured—usually in from two to five weeks.

Case 6. Child aged 7 years. In playing "pull away" with other children he had his index-finger severely pulled by a playmate and "broken." The x-ray demonstrated an epiphyseal separation of the first phalanx. (Fig. 2.) The parts were replaced by manipulation, the replacement being confirmed by an x-ray examination, a tin splint was applied and the entire finger bandaged thereto with adhesive-plaster straps. This dressing was maintained, with renewals, for about four months, to insure union of the parts and to guard against additional injury. Passive motion was practised every few days, to prevent ankylosis.

Fractures and Their Treatment

Fractures of the bones may follow any crushing force or sudden blow; muscular force alone cannot cause fracture of healthy bones of the hand because of their greater strength as compared with the muscular effort. Fractures may be simple, compound, complicated and comminuted; they may and often do occur independent of any injury to other parts, but oftener they are seen compounded. Bones which are sawed or cut in twain are considered as fractured. Conditions which predispose to fractures are old age, with its excess of mineral salts in the bones; atrophy from prolonged rest or disease or from paralytic diseases, with its consequent weakening; ankylosis of nearby joints with loss of motion and inability to give or yield to the injuring force; rachitis, syphilis, osteomalachia, scorbutus, osteomyelitis, fragilitas ossium and echinococcus, because of structural changes producing a weakness. Long

Fig. 2. Epiphyseal separation of first phalanx of the index-finger

bones are more subject to fractures than short ones because their shape offers less resistance to traumatism. Persons working about machinery or bodies moving at high speed or with great force, or around where there are falling bodies, are most apt to suffer fractures.

The symptoms of fracture are deformity, preternatural mobility, loss of function, crepitation, pain and discoloration, the two latter being minor and not of specific diagnostic value. The deformity may be longitudinal when the bone is shortened by impaction; transverse when there is lateral displacement of the fragments; angular with an angular displacement; rotary when the bone is turned upon its long axis; and depressed when the bone is dented in. Deformity and preternatural mobility may be absent because of

incomplete fracture, companion bone, nearness to joint, or muscular rigidity. Crepitation may be absent because of impacted fracture, incomplete fracture, tissues between the fragments, coating of the ends with lymph, want of control of fragments or muscular rigidity. If the diagnosis be doubtful examine with the x-ray. The treatment of any fracture consists in securing and maintaining coaptation of the fragments, to which end we employ extension, counterextension, manipulation and retention dressings.

Fractures of the Carpal Bones

The *carpal bones* may be fractured by direct violence as when the injuring force impacts upon the wrist, or by indirect violence as in a fall upon the hand. Fractures of the carpal bones sometimes accompany fractures of the radius. In the first two instances any one of several of the bones may be injured; in the latter the scaphoid

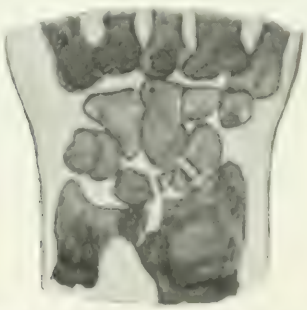


Fig. 3. Fracture of Scaphoid, semilunar and radius

and semilunar are the ones most apt to be involved. (Fig. 3.)

Unless there be extreme violence the carpal bones are not subject to any degree of displacement, but owing to their important relations to other parts of the hand a very slight displacement will cause a great deal of disability. A carpal fracture without displacement causes only a temporary disability, but a severe fracture, such as results from crushing or mashing forces, invariably leaves the carpus ankylosed and causes a permanent disablement.

In simple fractures there may be absent some of the typical signs of fracture, but the patient should receive the benefit of the doubt and the injury be treated as a fracture with rest and support. The greatest danger in a mistaken diagnosis lies in putting the hand to use too soon and so inviting greater disability. Whatever displacement or deformity exists in a simple fracture should be reduced and a plaster-paris dressing applied.

Case 7. Factory hand. The man fell down a short stairway, striking upon the hand. He experienced intense pain for a short time, which was somewhat relieved by liniments. The pain and disability persisting, the patient called the next day upon

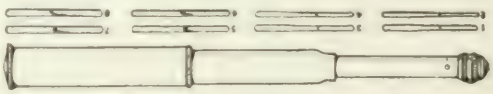


Fig. 4. Perry's bone drill

the company surgeon, who found, upon x-ray examination, a fracture of the scaphoid with a perceptible dislocation of the fragments. Manipulation under chloroform relaxation succeeded in coapting the parts. A plaster-paris dressing was applied and kept on for two weeks; then an adhesive-plaster splint for a third week, when the man was discharged with a useful wrist. Passive motion was employed daily after the first week.

Case 8. School-teacher. The man fell on the ice, *fracturing the radius, scaphoid and semilunar* (Fig. 3), the diagnosis of the latter two fractures being made during an x-ray demonstration of the fractured radius. There was very slight displacement of the carpal fragments, and this was reduced and the parts were enclosed in a plaster-paris dressing. Union took place without untoward symptoms, and when seen two years

Fig. 5. Eagle crochet needle

later there had presented no disturbing element in the functions of the hand.

The Suturing of Bone Fragments

In cases of comminuted fracture, and in simple cases when it is difficult to secure proper coaptation by ordinary means, it

becomes necessary to suture the fragments together. This is a comparatively easy procedure if the surgeon be equipped with suitable instruments. For many years past I have used as a bone-drill what is known in the tool trade as an automatic hand-drill or boring tool (Fig. 4) and with eight assorted drills can be bought cheaply from any tool dealer. It is all metal, nickel plated, aseptible, easily operated with one hand (thus leaving the other free to steady or manipulate the fragments), and is far superior to any drill sold by instrument makers. Caution and skill are required in its use because of its rapid penetration.

For sutures use silkworm gut, pure magnesium wire, tinned iron wire or slow-absorbing catgut. A fine steel crotchet hook (Fig. 5) suffices to draw the sutures through the drill holes. The magnesium wire is difficult to work with but has the advantage of being absorbed in a few weeks and not absorbing secretions or affording a field for germ-culture. Silkworm gut, while not absorbed, is so smooth and nonirritating that it seldom gives rise to inconvenience and may be removed after union has taken place, or left *in situ* to eventually become encysted or incorporated in the bone-callus.

Small, slender steel nails have been used in maintaining coaptation in carpal fractures, but I do not consider their use as satisfactory as suturing, especially as they have to be removed later on. For attaching small fragments to the body of the bone, and even in some fractures, small beads, nails or tacks of magnesium wire may be successfully used, the drill being first used to prepare a channel for them. In the comminuted fractures of crushed and mashed hands, if part of the bone be lost, resort can be had to grafts of decalcified bone or bits of living bone from another hand.

(*To be continued*)

The Management of Gallstone Disease

A Surgeon's Advice as to Its Medical Treatment

By EMORY LANPHEAR, M. D., Ph. D., LL. D., St. Louis, Missouri
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AT the outset it may be said that all gallstones do not need to be removed. Indeed a large proportion of all patients above fifty would show, on section, stones in the gall-bladder—stones which have caused no symptoms whatsoever. "Gallstone disease" therefore becomes a surgical disease only when conditions of serious character arise.

Colic

The most conspicuous symptom of cholelithiasis is colic. Now, one attack of gallstone colic does not mean surgical interference unless it be unduly prolonged or unusually severe. A few injections of hyoscine with morphine generally suffice to tide the patient over the spasm; as soon as complete relaxation occurs the stone drops back into the gall-bladder from which it has been driven by contraction of the musculosa of that viscus; and if the patient be kept quiet, with only a small quantity of easily digested food, the paroxysms are not likely to recur.

If the now famous H-M-C tablets are used, care should be exercised not to give them too frequently: one full-strength tablet (morphine, gr. 1-4; hyoscine, gr. 1-100; cactin, gr. 1-67) may be given hypodermically and repeated in an hour; but thereafter the doses should be fully three hours apart. One of the fatalities from the H-M-C combination was that of a woman past sixty-five to whom ten full doses were given within eight hours; the stone suddenly dropped out of the cystic duct and she promptly went into a fatal sleep. How could it have been otherwise? Two and one-half grains of morphine and one-tenth of hyoscine hydro-

bromide within eight hours to a patient past sixty-five! If two or three doses had been given and then a little chloroform to complete relaxation, how much better it would have been.

But—care must also be exercised in employing chloroform in this trouble. A number of cases of acute yellow atrophy of the liver, with fatal ending, have been recorded from the injudicious prolongation of complete anesthesia by chloroform. In one instance, in St. Louis, the wife of a doctor was kept under chloroform for thirty-six hours; the autopsy revealed acute yellow atrophy of the liver as the cause of death. It is best, therefore, to give a full dose of hyoscine and morphine, repeat in an hour or more, and then enough chloroform to put the sufferer into perfect surgical narcosis for a half hour or more; then let the patient awaken, repeating the chloroform in an hour or two if necessary.

The expression "a small quantity of food" means that food is not to be absolutely withheld. If nothing be given by the stomach, distention of the abdomen with gas is likely to become distressing; hence it is best to give a little beef tea, cocoa, thin soup, etc., supplemented, if need be, by nutrient enemata.

Jaundice

Jaundice is not a prominent symptom in gallstone disease. The average doctor is inclined to ascribe too much importance to it. It is present in less than ten percent of all cases of gallstone colic. It means, when present, either occlusion of the common duct with a stone (which is practically always a surgical condition—demanding choledechotomy) or stoppage of the out-flow of bile by inflammatory products (swelling of the mucous membrane of the common duct from cholangitis, pressure by distended, adherent gall-bladder, formation of bands from pericholecystitis, etc.)—the latter generally termed "catarrhal jaundice."

Simple jaundice of this "catarrhal type" generally subsides in a few days under proper medication and limitation of diet.

Recurrence of jaundice, time after time, means there is a stone in the common duct which allows the bile to pass most of the time but which checks the outflow whenever the mucous membrane swells from repetition of the cholangitis. If these attacks yield readily to medicinal and dietary management there is no special need of surgical intervention; but if there is constant pain at the point of impaction the danger of perforation and fatal peritonitis should not be forgotten in the management of the case.

A persistent recurrence of a mild type of jaundice with continued soreness at the "pit of the stomach" is suggestive of a stone lodged in the ampulla of Vater. In such cases the urine and feces should be frequently examined. If glycosuria appears or if excess of fat globules be found in the feces no time must be lost in removing the stone—pancreatitis can thus be cured early, especially if at the same time cholecystostomy be performed for drainage and irrigation purposes. Washing out the gall-tract by dioxide of hydrogen injected through a small, soft catheter is distinctly curative of this serious trouble.

Cholecystitis

Gallstones quiescent in the gall-bladder cause practically no discomfort. Statistics show that in only about five percent of all cases of cholelithiasis is colic present. Trouble arises only when the gall-bladder becomes infected with colon-bacilli, staphylococci or other forms of pyogenic microorganism. As soon as the acute inflammation becomes severe the mucous membrane swells, the musculosa becomes active, and one or more stones may be forced into the cystic duct—hence colic. If the duct is not occluded either by swelling of the mucous membrane or by impaction of stone, drainage into the duodenum may take care of the inflammatory products and nothing more serious than acute cholecystitis (generally called congestion of the liver) may occur; that is, the inflammation may subside under sedatives, laxatives and local applications and the patient be as well as ever. But, if

no stones were in such an inflamed bladder prior to the attack, they are pretty sure to follow, the dead bacteria acting as a nucleus in the stone-formation.

The inflammation may, however, persist in spite of drainage through the duct (and sometimes when no stone is present) and gangrene follows. This is most serious and of course immediately takes the case from the field of medicine to that of surgery.

When the cholecystitis persists in spite of sedative agents, laxatives and careful dietary, surgical treatment is always advisable. If there is reason to believe that a stone occludes the cystic duct (by reason of continuance of severe pain, fever, distention with tenderness or even formation of a mass recognizable as a distended gall-bladder) there is urgent need of immediate operative treatment.

When the gall-bladder becomes infected with any of the staphylococci or with the streptococcus and the duct is occluded, the cholecystitis assumes a more important character. It immediately becomes a surgical rather than a medical disease, and is to be treated either by cholecystostomy (emptying and draining) or cholecystectomy (total removal), at the discretion of the operator. Unoperated empyema of the gall-bladder is one of the most serious of surgical conditions—one which calls for the services of an experienced surgeon, for bungling or careless technic will be followed by death.

When occlusion of the cystic duct occurs without acute infection, hydrops of the gall-bladder follows; distention with the "white bile" of the older writers takes place. The bile already in the sac loses its color by deposition of the solids on the stones or walls, the mucus secreted by the gall-bladder rapidly accumulates and a tumor forms, readily palpable through even a thick abdominal wall. This may not give rise to much distress but it is always a serious menace to life. Therefore every such case should be referred to a competent surgeon for cholecystostomy, cholecystectomy or cholecystenterostomy, as the conditions present may indicate.

The doctor who treats such cases by local applications, internal medication, rest, electricity, etc., is toying with the lives of his patients. It is true that some people have lived for years with such "tumors"—the gall-bladder enlarging so as to be mistaken for ovarian tumor; but these exceptional cases form no excuse for jeoparding the lives of less fortunate individuals who may die from rupture if not properly operated upon.

General Remedies

Among agents most employed in the general treatment of gallstone disease olive oil probably is most popular. This is the basis of all quack "cures" of gallstones "without the knife;" by the administration of large quantities of the oil artificial "stones" are produced—balls of soap closely resembling gallstones are passed in such quantity that the victim is well pleased to pay the high sum of which he is being fleeced.

The bland oil, however, unquestionably has a beneficial effect. In the first place, distention of the colon, particularly at the hepatic flexure, causes discomfort by pressure upon the irritated, hypersensitive gall-bladder; relief of constipation by the oil, therefore, gives comfort to the patient. By affording free passages, the pain induced by straining at stool is avoided—another distinct gain. In the second place, the secretions are stimulated and the local congestion diminished by the action of the oil. In the third place, oleic acid is claimed by some to have a direct effect in overcoming the local infection. Oleic acid has been given, in capsules, in doses of half a Gram (8 drops) twice a day, gradually increasing the dose to a full Gram (16 drops), but at the end of two weeks reducing the amount to one capsule daily. Many cases have been reported relieved by this agent, the pain after colic more quickly disappearing than under any other treatment.

Phosphate of sodium, in all sorts of doses, has for some years been indiscriminately administered for gallstone disease. I cannot help but feel, from a rather large experience, that too much of this drug has been used. It is a decided irritant to the gastric

mucous membrane and when long continued may lead to gastric catarrh, which is rather worse than the preceding cholecystitis.

Succinate of sodium is far less irritating and apparently much more efficacious in rendering the symptoms less prominent, even if not curing the disease.

The pain which follows an attack of gallstone colic may be either near the gall-bladder or quite remote therefrom. (Referred pain.)

Pain which is present at or near the gall-bladder may be either one of two kinds. First, a dull, aching pain, which is due to the continued irritation of that viscus from increased tension and continuance of a mild amount of inflammation; and, second, that which is dependent upon an intense inflammation—generally an infection with staphylococcus or streptococcus, whereas the mild form resulted from infection with bacillus coli communis or the bacillus of Eberth (typhoid).

In this second type of pain the tendency is always to give morphine for the relief of suffering; sometimes for a long (too long) period after the disappearance of the colic. Here, if any opiate must be used, codeine will be found best. The dose commonly given is entirely too small. One grain of the phosphate hypodermically, repeated every three or four hours, is not any too large a quantity.

It is better, if possible, to discontinue the opium salts at once after the subsidence of the acute attack. Hyoscyamine (not hyoscine) gives satisfaction in a large proportion of cases. It may be given in doses of one-hundredth of a grain, hypodermically or by the mouth. The frequency of repetition must depend upon "effect;" if four doses a day produce the characteristic symptoms of its action, that may be enough; other patients may require more—a few, less.

However, patients insist upon having some kind of medicine "to prevent another attack." What may be given with advantage?

First, some form of saline laxative; in a general way an effervescent epsom salt answers best. It must be supplemented by large quantities of water; the sipping of hot water seems to increase the flow of limpid bile. A little quassin makes an agreeable bitter addition to the water.

Second, some type of bitter tonic; on the whole strychnine seems to give best results, though theoretically it might induce a spasm of the gall-bladder. Practically strychnine does not do this, but it assists peristalsis and helps restore the general health quicker than any other drug. It is useless in doses of less than one-thirtieth of a grain three times daily.

Other drugs which have high recommendation are euonymin, xanthoxylin, berberine, and hydrastine, although it is questionable whether they act in any special way save as bitter tonics.

If, in spite of all the careful medication and particularly in the face of utmost care in diet, the attacks of colic recur again and again or the jaundice persists longer than a fortnight, the case ceases to be a medical one and the services of an experienced operator should be secured. Even such a one may meet with conditions which are almost appalling; and, rarely, the pathological changes are such that human hands cannot correct them. Here, indeed, is one of the surgical fields where "fools rush in where angels fear to tread."

Enuresis and its Treatment

Especially as it Occurs During Childhood

By GEORGE H. CANDLER, M. D., Chicago, Illinois

EDITORIAL NOTE.—Not long ago there came to us several request for a practical paper on this subject. We asked Dr. Candler to prepare it, and the result is the article that follows. The treatment advised is based upon the anatomical and physiological conditions, and the pathological variations therefrom. Hence, the suggestions given are rational and in a large percentage of cases, when followed, will lead to success in the treatment of an ailment which often resists the physician's efforts.

IN order to treat any but the most ordinary case of enuresis successfully it is essential that the clinician not only comprehend fully the anatomical and physiological conditions connected with the normal performance of the urinary function but be familiar with the peculiarities which obtain during the earlier years of life.

Anatomy and Physiology

The sphincter vesicæ by tonic contraction controls the outlet from the bladder, and the detrusor muscle by momentary contraction empties the organ. Detrusor and sphincter muscles are innervated by segments in the cord corresponding to the third, fourth and fifth sacral nerves. Gowers points out the positive and negative action of the motor nerves. The tonic (motor) centers for the sphincter maintain contraction while the centers for the detrusor hold it in a state of dilation.

When the bladder becomes distended with urine impulses are transmitted by the sensory nerves to the sensory centers which by association fibers are connected with the motor (reflex) centers. The motor centers when sufficiently irritated reverse their action and a *negative* impulse is sent down the motor nerves to the sphincter, which *dilates*, while a *positive* action is transmitted to the detrusor which *contracts*. Here we have a perfect illustration of a physiological automatic reflex, which is, however, held in check by the inhibition of the brain, a restraining influence upon the spinal reflexes being conveyed through the nerve-fibers connected therewith.

This inhibitory action of the brain must be overcome before the automatic reflex can take place, hence the voidance of urine is not so truly automatic as an indirect impulse; the brain relaxing its control on the spinal centers and thus allowing the performance of the automatic reflex.

Enuresis from General Ailments

These facts once grasped it is not at all difficult to understand how remote disorders may (reflexly) produce a most stubborn enuresis.

Even in the most normal child the bladder reflexes are, moreover, very unstable. The detrusor muscle is thick and contracts powerfully, while the sphincter remains for some time peculiarly weak. Moreover, during the first years of life the motor areas of the cord are more developed than the sensory, hence, what would produce sensory disturbances in an adult is reflected into a motor arc in the child and motor disturbances result. The undeveloped child's brain can not control (or maintain in proper equilibrium) the extremely active spinal reflexes.

Children not infrequently void on the instant and in a full stream the contents of the bladder. Whippings, under such circumstances, prove worse than useless and the very fear of offending serves to produce the offence. Here there may be no true disease, but insufficient brain control or overactivity of the spinal centers. The urinary reflex in such patients is absolutely *automatic*. Just as soon as the bladder becomes sufficiently irritated by the presence of urine the sensory nerves induce (through

the spinal centers) contraction of the detrusors and relaxation of the sphincter and, *nolens volens*, the unhappy child wets himself or the bed.

In such cases we must look for abnormal conditions in the urine itself (such as alkalinity or hyperacidity) or remote sources of irritation, and failing to discover gross wrongs devote our attention to improving conditions generally.

It is in this form of *active* enuresis that atropine (or hyoscyamine) acts most beautifully through its relaxant effect upon the unstriped muscular fibers. In passive enuresis, on the contrary, the urine is voided in small quantities and at frequent intervals; it may be said to dribble away, the patient being entirely unable to control, or even unconscious of, the flow. Here quite evidently there is no overaction of the detrusors, but a weakness or partial paralysis of the sphincter. The child will probably present other evidences of nerve instability and may be poorly nourished.

Three Main Etiologic Factors

Three main etiological factors have to be considered in practically every case: first, instability of the nerve centers, due either to age, hereditary influences or a toxemia; second, malnutrition with accompanying poverty of blood and consequent "nerve starvation," third, irritation, of reflex origin.

Not infrequently some two or all of these conditions coexist. It is quite evident, therefore, that there can be no "specific" treatment for incontinence, and it is equally positive that in some cases only the most precise knowledge of underlying conditions and prolonged administration of the indicated remedies will produce remedial results. Again, the most simple procedure may effect a cure, providing the physician has therapeutic acumen enough to recognize the *causa causans* and remove it.

An Illustrative Case

I have seen a bed-wetting child treated for months with every conceivable drug: his sphincter ani dilated, a somewhat long but not adherent prepuce removed, and a pair of glasses fitted, after prolonged tests of vision, by a celebrated oculist. The little patient was dieted, placed upon a limited amount of fluid, and compelled to rise from a hard, lightly covered bed twice each night to empty the bladder. And still, toward morning, he soaked his mattress. Examination of the urine revealed nothing abnormal and a thorough physical examination was equally unenlightening. However, as soon as the urinary organs were exposed the extreme smallness of the meatus attracted attention and the vestibule proved to be in a state of congestion. The orifice was enlarged, a preparation of calendula and hamamelis applied several times daily, and a small steel sound passed every other day for ten days. The boy has never even moistened his sheets since! Drugs here could not have proved curative. A very simple (and not uncommon) irritative condition existed and demanded correction.

Not a few practicians have failed to cure an enuresis and had the questionable pleasure of seeing some old woman stop the leak by removing with a garlic or quassia enema a colony of pinworms (oxyuris) from the rectum. Female children infested with these parasites are particularly prone to incontinence, the female worms migrating to the external genitals where their wrigglings in the vaginal orifice and over the exquisitely sensitive region of the clitoris cause intense irritation. I have removed such a pinworm from the female urethra, and these parasites have even entered the bladder.

Other sources of reflex irritation, easily recognized and removed, are phimosis, vulvitis, retained smegma, anal fissures or fistulæ (rare), retention of fecal masses, undescended testicle and hernia.

Masturbation a Common Cause

Masturbation causes enuresis more frequently than most physicians realize and parents should always be warned of this possibility and instructed to watch the little one. High-strung, excitable children are peculiarly prone to first handle and then titillate their genital organs, the danger being especially great when two or more

youngsters occupy the same bed. The habit once contracted is not always easily broken, but a few common-sense talks from the mother or father, backed up if necessary by a serious warning from the family doctor, will suffice to put an end to such practices in many instances.

Excessive acidity of the urine can of course be easily detected. Quite young children are particularly likely to void an excess of uric or lactic acid, or the acid phosphate of sodium, when they first begin to "eat at the table;" i. e., ingest a variety of unsuitable food. These children, as a rule, void small quantities of high-colored urine frequently; others again only wet the bed, the urine at night becoming more concentrated. The treatment here, provided no complications exist, is extremely simple. Lithium or sodium benzoate, potassium acetate, or even sodium bicarbonate may be given in dosage to suit the age three times a day with an abundance of pure water. The diet must be regulated and perfect digestion secured.

Unfortunately more than one probable cause for incontinence will often be found; sometimes indeed, especially when dealing with overfed and highly indulged children of parents with neurotic tendencies, the physician will wonder just which condition should receive attention first.

Correct the Gross Abnormality

A fairly safe rule is to correct immediately any gross abnormality. Circumcise if at all desirable. In every case make sure there are no adhesions or retained smegma. Examine the meatus and assure yourself that the urethra is normal and testicles properly placed. Female children require an equally careful examination; any inflammatory condition of the labiæ or vagina requires prompt attention.

Having excluded anal or rectal disorder and finding nothing wrong about the external genitourinary organs, the physician will next examine the urine. If this is normal, or fairly so, cystitis, diabetes, nephritis and vesical calculi may be stricken from the list of probabilities. Constipation, if it exist, will next be overcome and the child's diet regulated. A careful watch will of course be kept of any sign of ascarides, teniæ or roundworms.

Should enuresis still persist in a child free from any of the disorders mentioned, and presenting no distinct evidences of disease of the nervous system, brain or spine, the physician must devote his attention to improving systemic conditions generally, meeting individual symptoms with the right remedies pushed to effect.

Weakness of the sphincter will yield to strychnine or brucine and hydrastin. Here and there minute doses of atropine valerianate may be given as an alternant to evercome overactivity of the detrusor. Not infrequently a condition of nervous instability exists, and here nuclein or the nucleinated phosphates (lime, sodium and potassium) will prove most effective. I give one or two tablets of the nucleinated phosphates with brucine, gr. 1-67, and hydrastin, gr. 1-6, three times daily, and very small doses of atropine valerianate every three hours.

The "incontinence" formula was devised to meet the conditions which present in this type of patients. Delphinine and thuja are here added to the atropine and strychnine and the combination, alone or alternated with some distinctly indicated remedy, proves remarkably efficacious in a large percentage of cases

In spasmodic or lithemic cases rhus aromatica gives splendid results. Gtt. 1-3 with thuja, gtt. 2, should be ordered every three or four hours. Hyperesthesia of the urethral mucosa ordinarily yields readily to the atropine and hydrastin, but occasionally hyoscyamine or solanine prove the better remedies. Occasionally we may encounter a spasmodic condition of the urethra; here lobelin (injected in solution) gives immediate relief. Very minute doses of hyoscyamine or delphinine will be indicated internally. Rarely, indeed, the deep urethra requires dilation; in obscure cases it is always well to pass a sound.

Rectal Medication

The efficacy of rectal medication in enuresis must not be forgotten: suppositories con-

taining ergotin, hydrastin or thuja and hyoscyamine and frequently used advantageously. We can in this way produce the desired drug effect in young children or where it is undesirable to give medicine in the ordinary manner.

In all cases the general hygiene must receive attention. The child should be fed regularly and upon easily assimilated, nutritious food. Exercise in the open air and daily bathing of the entire body are to be advised. Fluids in unusual quantity should not be allowed, and where irritability of the vesicle muscle or weakness of the sphincter exist none whatever given for two hours prior to retiring.

The child should empty its bladder thoroughly on going to bed and again when the adults retire. The covering should be light and the room well aired. On no account should the child sleep with another person or wear flannel about the lower part of its body.

Fear will never prove curative and the child who is promised a whipping if his bed is wet in the morning will most assuredly wet it. *Suggestion* however will do a great deal. Tell any child old enough to reason that certain procedures *will* keep him from disgracing himself and quite often there will be no further trouble. Naturally the curative procedures, whatever they are, should be made impressive and the suggestion, "after this you simply will not wet the bed," strongly enforced.

A peculiar type of patient is the boy who sleeps so soundly in the morning that he forgets to get up and relieve himself. This fellow should be awakend late at night and the first person up in the morning should see that he does urinate. A persistent and loud alarm clock may be prescribed for a patient of this kind over ten years of age.

In anemic or "strumous" children iron iodide often proves wonderfully effective. It may be given week and week about with the nucleinated phosphates. Even from this very incomplete presentation of the subject it will be readily understood that to cure enuresis the physician *must* study carefully the conditions present in the individual and recognize at least the principal cause, adapting his treatment to meet the requirements. Once in a while enuresis will persist, despite the most skilful treatment, but nine times out of ten a *thorough* examination of the patient and his excretions will reveal the source of trouble and all that remains then is to select and administer intelligently the right remedy.

In closing it might be well to call attention to the fact that many children in these days are overtaxing their nervous systems. Ambitious parents urge greater effort at school, and these boys and girls, who should be sleeping, attend theaters, dances or "parties," night after night, finally tumbling into bed in a state of utter exhaustion. The *cause* of incontinence here is not hard to find. The remedy is equally obvious.

BEGIN every day with a program, and determine that, let what may come, you will carry it out as closely as possible. Follow this up persistently, day after day, and you will be surprised at results. Make up your mind at the very outset of the day that you will accomplish something that will amount to something, and that you will not permit the little annoyances to spoil your day's work. Make up your mind that you will be larger than the trifles which cripple and cramp many lives; that you will rise above petty annoyances and interruptions and carry out your plans in a large and commanding way. Make every day of your life count for something. make it tell in the grand result, not merely as an added day, but as an added day with something worthily achieved.—*H. B. Sonneborn.*

Every-Day Surgery

A Series of Articles Upon the Surgical Treatment of Common Ailments

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois
Professor of Surgery, Bennett Medical College; Attending Surgeon, Mary Thompson Hospital, Etc.

EDITORIAL NOTE.—The first article is merely introductory to Dr. Blackstone's series. Next month he will discuss "Circumcision." The technic of the operation will be given in detail, and this will be so carefully written, and so thoroughly illustrated, that any practician of average ability should be able to perform the operation in his own office, without difficulty.

THIS series has been written at the request of a great many of my brother physicians in order that they may practice surgery successfully at their respective locations without sending their patients to far-away hospitals, and at the same time compete with the irregulars, who, while they are not scientific and do not always obtain good results, still enjoy the most lucrative practice and get the largest fees.

The mission of this series is to demonstrate to the general practician several operations that can be done in his office or at the patient's residence in a strictly scientific manner, and thus enable him to hold many patients who otherwise would go to quacks and have the same various operations incompletely done or not done at all. Surely if a radical operation can be done painlessly and scientifically, without the patient losing any time from his regular occupation, it should be our aim to demonstrate these operations in the clinics of the larger institutions of medical learning as well as in the smaller ones, providing, especially, that it is absolutely safe so to do. We can thereby save to the profession many earnest, capable and well-meaning practicians who, on account of family responsibilities, are forced to go into quackery.

By this same means we can also do away to a large extent with adverse criticism of the profession by the laity, and also save to the regular profession a large clientele which yearly drift away from us on account of our lack of knowledge that the operations to be described in this series can be done radically and painlessly, with practically no inconvenience to the patient.

Great advances have been made in the palatability of our drugs and foods, and these advances have been in perfect accord with science and the aim of our profession, viz., to prolong life and relieve suffering. And we should add another aim, especially when it is in perfect harmony with the principles of our profession, i. e., convenience of the patient; by that I mean, not putting into jeopardy the business or occupation that he may be engaged in.

I claim no originality for these operations. They simply apply what I have seen in the various clinics of this country to ambulatory surgery. These operations have been performed by me at the clinics of the Jenner Medical College, United Hebrew Charities, West Side Free Dispensary, Jefferson Park Hospital, and in my own private practice over a period of more than ten years, while the subject-matter contained herein is written from lectures and demonstrations given at the institutions mentioned.

I am not attempting here to write a systematic work, but merely to bring before the general practicians a few little operations which I have been led to believe are of some value

In this connection I wish to thank the artist, Dr. Zan D. Klopper, for the able manner in which he has prepared the drawings illustrating the text. These drawings are free-hand productions made from actual operations, Dr. Klopper sketching each

step of the operation as it progressed under my hands.

Radical surgery can be done without confining the patient to bed for more than a day or two for the after-treatment. This radical surgery can also be made painless either by the use of a general anesthetic, such as chloroform, ether, ethyl bromide, A. C. E. mixture, nitrogen monoxide, i. e. laughing gas, or by local anesthetics, such as cocaine, its derivatives, Schleich's solution, anesthaine, ethyl chloride, etc. I have also had some little experience with the H-M-C compound, and so far this has given good results. In fully 99 percent of my cases I use local anesthesia so that the patient may not lose consciousness and thus retain the use of all of his faculties. The operations that may be done painlessly and radically by this method are as follows:

All external tumors, such as superficial lipomata, dermoid cysts, fibromata, etc., carbuncle; all operations on the muscles of the eye-ball; cataract; iridectomy; intranasal, intrapharyngeal, intralaryngeal operations; amputations of fingers and toes; removal of foreign bodies beneath the skin; injuries; varicocele; hydrocele; hernia; circumcision; castration; thyroidectomy; tubercular glands; buboes; abscesses; ingrown toe-nails; bunions, etc.

All the above-named operations and many more can be done under a local anesthetic at the physician's office or at the patient's home, requiring the patient to lose no time from his regular occupation. If, however, the patient wishes or if the physician sees fit or finds it necessary for the patient to rest or to be confined in bed for a day or two, then the operation may be performed on a Saturday afternoon or evening or Sunday morning, so that the patient may be able to go to his work Monday morning and thus still not lose any time from his occupation. It is needless to say that after a hydrocele or varicocele operation or the like the patient should not be allowed to do work that requires great physical effort, but the majority of the occupations may safely be followed after any of the operations enumerated. I have removed in my own office a sarcoma of the testicle weighing three and one-half pounds and the patient, a laborer, went to work on the following day.

I will proceed to portray in this work only the methods that I follow in my clinics as well as in my private practice. I shall not go into detail as to how I perform all the operations here mentioned, as many of them are very simple and I cannot add anything new except perhaps the method of cocainization or local anesthetization, describing, however, fully some operations the description and teaching of which have, to my mind, not received quite sufficient attention in the leading clinics and textbooks on surgery.

THOSE who wish to be effective in the world, have, among the first and most discouraging obstacles they meet, the wooden men who hover on the safe edge of every conflict, their arms laden with wet blankets, and finding the delight of their lives in smothering enthusiasms.
—John W. Churchman in Atlantic Monthly.

Can the Course of Typhoid Fever Be Cut Short?

The Experience of a Physician who Believes that It Can Be, Giving the Methods of Treatment that Bring Him Success

By D. E. STANDARD, A. M., M. D., Springfield, Missouri

IN the Miscellaneous Department of the July number of CLINICAL MEDICINE, page 799, you ask for a discussion concerning the frequency and possibility of the prevention of typhoid cases. This request follows an article on "Autointoxication and the Clean-Out Policy" by Dr. J. R. Etter of Crawfordsville, Indiana.

For several years I have been tempted to write an article on typhoid fever for your journal, but because the stand which I have taken has been decidedly different from that held by my neighbor physicians, I have refrained. However, after this invitation, I feel free to do so.

Typhoid Fever Can Be Cut Short

First of all, I firmly believe that ninety-nine percent of all cases of typhoid fever can be prevented or cut short at the start by cleaning out with calomel, podophyllin and the bile salts, given at 6, 7 and 8 p. m. every other day for three rounds, with a full dose of effervescent magnesium sulphate the next morning upon rising, and on the day when the calomel-podophyllin combination is not administered, 10 grains of the combined sulphocarbolates, one-half hour after meals and at bedtime for a week or ten days. If the above outline were followed as a preventive where typhoid symptoms are manifested in a neighborhood, family or individual, I believe that very few cases would develop.

As to the treatment of typhoid, I am considered fully as radical as are my beliefs in prevention. This fact to any but an alkaloidist might seem strange, but to us of the "family" and of the faith it should not seem so. In more than eight years of the practice of medicine I have never had during the same season the second member of a family afflicted with typhoid. Now, this fact is worth notice. Put a pin in it, and ask yourself, any of you who have practised eight years and do not use the alkaloids, if you can boast of the same successful treatment.

Absence of Complications

I attribute my success in the treatment of this disease wholly to the preventive measures which I have outlined above, and to the disinfection of stools and urine of the patient. I have never had a typhoid patient who was delirious, nor one who had hemorrhage from the bowels, save in one case where the mother fed the child beet pickles and corn bread two days after the fever broke. The patients' families almost always kick at the limitation I place on the diet, and some kindly concerned friend, or long-nosed neighbor, or longer-tongued granny says, "This is not typhoid fever, for the patient is not out of his head," or "That is not typhoid fever because there has been no bleeding;" and quite frequently I hear from some neighborly doctor a kindly remark to the effect that "Dr. Standard's case of typhoid is not very bad," or "Dr. Standard calls lots of things typhoid." But the families where patients are located have come to care little for what the neighbors or neighbor physicians say, especially where there has been a prior case of typhoid in the same family attended by another physician.

They cannot fail to see that while the symptoms are exactly the same in both cases, my patient is not delirious, as was the first, for a week or ten days; that my patient has no hemorrhage from the bowels, while the other may have had half a dozen; and that instead of the fever persisting for

twenty-one days or more, quite often it is controlled by the ninth, eleventh or at least the fifteenth day.

During my last season's practice I had thirty-five cases of typhoid fever, and in only one of them did the temperature continue for twenty-one days and in only two to the fifteenth day. One patient died two weeks after the fever abated from a tubercular hip-joint complication and sequelæ, with a bad family history. That is the only case of typhoid fever I have ever lost and I do not consider that death due to the typhoid.

With the teaching on medication that we now have, I cannot, for the life of me, understand how so many cases of typhoid fever die. I firmly believe that four-fifths, if not nine-tenths, of all these cases that are lost could be saved if the physicians followed the line of treatment given in CLINICAL MEDICINE.

An Outline of Successful Treatment

Briefly permit me to outline: First, regardless of bowel condition, whether constipated or with diarrhea, I invariably begin with calomel, ipecac and soda, or calomel, podophyllin and bilein, or with younger children calomel and aromatics, followed by a laxative saline. When there is considerable elevation of temperature I use aconitine, in teaspoonful doses every half hour to two hours, as needed. This is my fever-rule: If temperature reaches 102° F. or above give the "fever solution" every half hour until the temperature goes below 102° F. and the patient's skin becomes moist; when the fever reaches 101.5° F. I give it every hour. When the fever is 101° F. I give it every two hours till it drops to 100.5° F. and then stop it.

Now to recapitulate: Aconitine every two hours when fever reaches 101° F.; if fever goes to 101.5° F., every hour till it drops. If the fever goes to 102° F. or above, every half hour till it drops to 101.5° F.

In no case of typhoid fever at any stage do I permit any sweet milk to be given. Personally, I believe that sweet milk has done more harm in typhoid fever than any other food. Why? Because feeding with sweet milk contributes factors which must do harm. Here is what results: First, chemical change; second, fermentation; third, decomposition and evolution of gases; fourth, distention. There can be no doubt that this quadruple process lies at the bottom of the tympanites, distention and serious bowel trouble, with final hemorrhage and frequent perforation and death—some of our great clinicians to the contrary notwithstanding. Never give sweet milk in typhoid fever. I am not sure that buttermilk as a rule is deleterious in these cases, but the few patients to whom I have given it have not done so well. I believe that it causes at least some decomposition and fermentation with evolution of gases, resulting in distention and bad effects. Of course, the patient gets all the cold water he wants, whenever he wants it.

For the severe headaches, when present, I use an ice cap and bandage over the eyes, being certain that all light is excluded. This, without any coaltar derivatives or other anodynes, will control the cephalalgia.

The Remedies Regularly Employed

Here are my usual prescriptions, which may be varied according to age, these doses being for an adult:

Intestinal antiseptic (sulphocarbolate comp.) tablets....No. 12
Copper arsenite granules (1-100 grain) .....No. 24
Liquid peptonoids or panopepton .....ozs. 6

M. Sig.: A tablespoonful in a little water at 6, 10, 2, 6 and 10 o'clock during the day. At 8 a. m. and 4 p. m. I give the patient egg-albumen with or without orange juice, and at 12 and 8 p. m. the patient receives *one* tablespoonful of beef extract, which I have made in the home. (Have the beef cut fine and put in a Mason fruit jar, sealed with new rubbers. Place the jar on the stove in warm water with the jar weighted down and allow the surrounding water to boil until the juice is extracted. When this is done pour off the juice and place it on ice. Make fresh every forty-eight hours.) Of course, for children the dose will be smaller.

For a child ten years old one teaspoonful of the beef extract is sufficient and one and a half or two teaspoonfuls of the liquid peptonoids mixture may be given.

The patient is expected to rest undisturbed from 10 till 6 o'clock. I try to make that an invariable rule. Keep the bowels open by using laxative salines and nothing else. If given in the effervescent form they will not cramp and "tear up thunder" in the intestinal tract. If a brown coating of the tongue persists and it is dry, thick, and cracked, give 1-67 grain emetin every half hour for six doses, the course being repeated in twelve hours, one or two times if needed; this will bring moisture to the tongue and assist very materially in changing the appearance of that organ. Cleansing of the mouth with a solution made by placing one compound menthol tablet in three-fourths of a glass of water, to which two teaspoonfuls of glycerin have been added, will prove very pleasant and if persisted in will help to do away with the bad tongue of typhoid fever.

Now, with a great majority of cases the treatment outlined above is all that is needed. If distention in the abdomen persists give two intestinal antiseptic tablets at 8, 12, 4 and 8 o'clock during the day, following the nourishment as directed. This brings down the distention and does away with the gases.

I realize that the treatment outlined is a simple one, and a great many who read this article may *think* it likely to be ineffective, but I firmly believe that if any doctor, anywhere, or any staff of doctors at any hospital, will follow it they will get practically the same results that I report.

Of course the treatment may have to be more or less varied according to complications that may arise. Occasionally I find a patient who will sicken and tire of liquid peptonoids or of the panopeptons, as the case may be. In such a case I use the other remedy, or if the patient tires of both I find that equal amounts of the two are taken and borne well.

After the first week or ten days, where the pulse is rather weak, instead of the straight aconitine solution for fever I use the dosimetric trinity, which has the same amount of aconitine with the addition of strychnine and digitalin.

If the pulse is full and a little hard, like the stroke of a hammer, I use the defervescent compound instead of the dosimetric trinity, as the former contains veratrine instead of strychnine and softens the hammer-pulse admirably.

I never use whisky in typhoid fever, and for that matter never have occasion to use it in any disease whatsoever. If in spite of half-hour doses of the fever mixture the temperature continues above 102° F., bathing of the entire body, beginning at either extremity, will often prove beneficial. Put a teaspoonful of salt and the same amount of vinegar into a quart of water, and direct the nurse to bathe slowly, and not to wring the cloth too dry. Do not dry the patient with a towel, but after bathing an arm take hold of the hand and holding it up dry the arm with the fan, repeating the process with the other arm, chest, etc., until the entire body is dried.

I never use ice water, and if the patient objects to cold water I tell the nurse to make it tepid. This bathing in conjunction with the fever mixture will control every case of persistent elevation of temperature. If bathing of the body once does not bring down the temperature (about fifteen minutes should be taken for the process) go right over the body again until the temperature is lowered.

I insist that a fair trial of this treatment will prove satisfactory, and I firmly believe that if it were followed generally the death-rate in typhoid fever would be lowered 50 percent or more. When some old granny, or anyone else, insists on more nourishment, tell them "NO," with both fists doubled up, your hair on end, and if necessary stamp the floor with both feet and tear a hole in something. Keep these messes out of the intestines and let those infected "Peyer's patches" have a chance to heal over, with the sulphocarbolates and copper arsenite to do their disinfecting and germicidal work.

Practical Helps in the Treatment of Typhoid Fever

Some of the Niceties in the Treatment of this Disease, which Mean So Much to Physician and Patient

By FRANK D. PATTERSON, M. D., Pueblo, Colorado

AT this time of year perhaps a few words concerning typhoid fever and its treatment may not be out of place. Though not as prevalent as it was in former years, still cases of typhoid fever do sometimes occur, and when called to such a case, it stands the physician well in hand to institute immediate treatment and not wait for any diazo reaction or Widal test to confirm the diagnosis. When a typhoid-fever case lasts the classical text-book length of from one to three months without a normal evening temperature, one of two things is undoubtedly the matter. Either there must be a long list of complications, or else modern treatment has not been instituted. By following the treatment which I here outline, the temperature may be permanently reduced to normal in from ten days to two weeks.

The Early Treatment of Typhoid Fever

When called to a case presenting marked typhoid symptoms, one must first see that the alimentary canal is thoroughly cleaned out and afterward disinfected by means of some suitable intestinal antiseptic. No drug as yet compares with calomel in stimulating general glandular activity. I have the patient take from 1-6 to 1-2 grain of calomel with or without 1-6 grain of podophyllin every hour for usually about three doses. Sometimes I give a tablet of calomel and sodium bicarbonate, 1-2 grain of each every hour until the bowels move, followed by a saline, preferably epsom salt, to keep up the glandular action. If put up in effervescent combination, it can be more readily retained by the stomach. Besides being a glandular stimulant, magnesium sulphate acts as an antitoxic through its affinity for carbon. The calomel and the saline not only clear out the infected bowel, but in a measure also act as intestinal antiseptics.

Besides that, the calomel will help to clear out the gall-bladder, where frequently the Eberth bacilli find a lodging place. In fact, the gall-bladder is sometimes considered a serious source of reinfection on account of the typhoid germs which there find shelter, and on that account some physicians go so far as to recommend the administration of sodium succinate as a preventive of this kind of a reinfection. However, to my notion, after the gall-bladder has been thoroughly evacuated and the system well saturated with some such internal antiseptic as calcium sulphide or echinacea, this danger of constant reinfection seems to be practically *nil*. At least my neglecting to give the sodium succinate has not prevented my typhoid patients from making quick recoveries. One has to be constantly on the look-out not to drug a typhoid patient beyond the endurance of his stomach to retain the medicines administered.

For the Reduction of Fever

For reducing the fever there is nothing quite like a combination of amorphous aconitine and veratrine, of each 1-134 grain every fifteen to thirty minutes. It is usually advisable to add to that mixture some heart stimulant, such as 1-67-grain doses of strychnine arsenate or strophanthin in doses of 1-500 grain each. To prevent unnecessary irritation of the stomach as well as to insure quick absorption of the remedies, the medicine should be given in solution. Where veratrine is given, it should be given with plenty of water and perhaps flavored with some aromatic, as otherwise it may not be retained.

If the stomach will not possibly tolerate veratrine, then during the acute stage pilocarpine in doses of 1-67 grain may be substituted. For quick effect, a hypodermic of from 1-8 to 1-6 grain may be given and will be far more effective in eliminating the toxins than will an ordinary perspiration caused by hot fomentations. On account of the depressing effect upon the heart, pilocarpine should always be fortified by some cardiac tonic or stimulant such as strychnine or strophanthin. In the heroic hypodermic doses above mentioned, there should at the same time be injected from 1-30 grain to 1-20 grain of strychnine sulphate.

Veratrine and pilocarpine are in fact two of the very best general eliminants that we have at our command. In fact veratrine is not quite as much of a depressant as we have been taught in our textbooks on therapeutics, and in small doses is sometimes considered a tonic to the circulation. Of course, however, it must be used with all due caution.

The Value of Echinacea and of Intestinal Antiseptics

After the acute stage of this disease is past, it has been my custom to substitute for the veratrine or pilocarpine either baptisin, 1-12 grain, or ten minims of the specific tincture of echinacea every two hours. Personally I prefer the latter, as its diaphoretic effect is soon manifest. It is also a diuretic, and by drawing the blood to the surface by stimulating the capillary circulation, consequently draws it away from Peyer's patches. Besides being a general eliminant, it is an internal antiseptic, attacking the typhoid bacilli wherever they may be found. At alternate hours, I have given the echinacea and a 5-grain tablet of intestinal antiseptic during the period of convalescence. This consists of the sulphocarbolates of calcium, sodium and zinc, and should be given in plenty of water.

As a general tonic, after the acute stage is past, provided the kidneys are in good working order, it has been my custom to administer some nuclein preparation to stimulate leukocytosis. Sometimes I would give five two-drop nuclein-solution tablets twice a day, or if I wished to keep up a steady action, would give one pill of the arsenates of iron, quinine and strychnine with nuclein every two to four hours during the day. Each pill of this latter preparation contains strychnine arsenate, 1-134 grain, the arsenates of quinine and iron, of each 1-67 grain, and four drops of nuclein solution.

For the relief of the abdominal pain, hyoscyamine can well take the place of the habit-forming drug, morphine. It may be given in doses of 1-250 grain every fifteen to thirty minutes until relief, or until the patient shows the full physiological effects of the drug. The following is a good combination for hypodermic use: Hyoscyamine, 1-125 grain, to relieve the pain, nitroglycerin, 1-100 grain, to open the capillaries and thus hasten the action of the hyoscyamine, and strychnine sulphate, 1-60 grain, to steady the nerves.

To prevent bed-sores, the dependent parts should be bathed with alcohol or with dilute lead-water. For tympanites, I have had turpentine stupes applied locally and administered internally bryonin, 1-67 grain, every one to three hours. In fact, I do not know of a more effective remedy for flatulence than bryonin. This remedy is not only a general intestinal stimulant, but also is of great service for the relief of pain as well as for the clearing out of any accumulations of mucus that might be present in the bronchi. Besides, bryonin is a stimulant to all glandular organs, including the liver.

Disadvantages of the Brand Method

The Brand system of cold-bath treatments I believe to be a most rash kind of a routine measure. Of course there are instances where in excessively high fever tepid baths, or even cold baths, are indicated, but taken as a whole, too great an extreme of cold applied to the skin tends to congest the internal organs, embarrassing the heart's action as well as determining the blood to the already congested bowel, thereby favoring intestinal hemorrhage.

If it were not so important to keep the patient quiet in order to avoid intestinal perforation, internal congestion could be remedied by means of external friction in conjunction with the cold baths. As it is, with quiet so essential to prevent perforation, the Brand treatment applied to run-down constitutions with weak hearts is most distinctly contraindicated. However, with the average patient, cool spongings with tepid water or with alcohol are usually beneficial if not applied for too long a time at a stretch. Not only do they tend to reduce fever but they also tend to ward off nervous symptoms besides. It goes without saying that all the discharges of the patient should be most carefully disinfected, and likewise should articles frequently handled by a typhoid patient be similarly dealt with.

The Diet of the Typhoid Patient

Having discussed some of the drugs used in the treatment of typhoid fever, I will say a few words concerning the diet. This thing is certain, never allow a typhoid patient milk until after there is no question but that the ulcers of Peyer's patches have completely healed. Though apparently a liquid, is it such after the casein of the milk has been acted upon by the rennet of the gastric juice? Malted milk may, however, be given, as there the casein has been predigested. There is a liquid predigested food on the market known as liquid peptonoids, which in the acute stage of typhoid I prefer to malted milk. Should these predigested foods be not readily obtainable, a first-class aliment for the acute stage is well beaten-up white of egg salted and peppered to suit the taste or flavored up with fruit juices, taking care that no fruit juices be administered within twenty-four hours of the last dose of calomel. After the acute stage is past, the patient may take oatmeal gruel that has been cooked for from four to five hours and strained through a fine cloth. A few days later the straining may be omitted.

Later the patient may partake of rice soup where the rice has been well cooked. Thus by degrees a solid diet is instituted, but at least two weeks must elapse after the evening temperature has become normal before it would be safe to allow the patient ordinary diet; and for some time afterward great care must be taken to guard the typhoid patient against his ravenous appetite during convalescence. To be on the safe side, at least a month should elapse from the time that the evening temperature becomes normal before the patient goes to work.

Under the general line of treatment here outlined, from bedside experience, I find the prognosis of typhoid fever to be much more favorable than it is given in most of the standard textbooks.

THE HUMAN TOUCH

'Tis the human touch in this world that counts,
The touch of your hand and mine,
That means much more to the fainting heart
Than shelter and bread and wine.

For shelter is gone when the night is o'er,
And bread lasts merely a day,
But the touch of the hand and the sound of the voice
Sing on in the soul alway.

—The Backbone Monthly.

Where Electrotherapy Cured*

The Report of Some Interesting Cases

By GEORGE N. MURPHY, M. D., Paducah, Kentucky

THIS is a large subject, and one I shall only deal with in this paper as I have used it in my practice, i. e., as an adjunct to other methods of therapy, and not as my only therapeutic remedy, although electricity is quite as capable of dealing with disease alone as any one branch of therapeutics, if it were as well understood. The main object of this paper, however, is to demonstrate the superiority of electricity over all other measures which I have tried in treating certain well-known diseases. In order to do this, I have selected a few cases which are met with by every doctor in the general practice of medicine. The scope of this article will not permit me going into the physics of electricity, not even the constant current, which is the only one I shall treat of in this paper, save an incidental reference to the x-ray current.

A Case of Leucorrhea and Dysmenorrhea

The first case I shall call attention to is one of chronic endometritis, accompanied by leucorrhea and dysmenorrhea, of eighteen years' duration, in a white domestic thirty-four years old and unmarried. I curetted and cauterized the uterus for this woman one year before I tried electricity in her case, without benefiting her in the least. This patient suffered so much during each monthly flow that she was compelled to remain in bed for several days.

The electric treatment was given with a zinc uterine electrode introduced to the fundus of the organ, attached to the positive pole of the wall-plate. The negative, a pad electrode 6 x 8 inches in size, was wet with a salt solution (sodium chloride) and placed on the abdomen over the uterus. The first few treatments were given with 25 to 40 *m. a.* of current, but later 50 to 75 were employed for ten minutes at each sitting. Two weeks after beginning treatment her period came on and there was some amelioration of her usual suffering. Treatment was continued three times a week for four months, and the patient was dismissed cured, menstruation occurring without pain and leucorrhea had disappeared. Treatment was completed eight months ago, and she still remains well. Electricity accomplished in this case what drugs and surgery had failed to do. With electricity the menstrual flow can be regulated to any desired degree, according to which pole is used in the vagina or uterus.

Enlarged Prostate Gland

The second case was one of enlarged prostate gland. The patient, white, was forty-two years old, in excellent health, save the trouble named; had never had any venereal disease, and attributed his ailment to an injury to the perineum received two years before I saw him, by falling heavily on his buttocks, on the ice. When he came to me he was suffering a great deal with pain in his perineum and testicles, and occasionally had to empty his bladder with a soft-rubber catheter. He also experienced some difficulty in defecation when the stools were firm, these being molded flat like a ribbon. Examination of his urethra showed a highly sensitive condition of the prostatic portion, and a slight obstruction at the neck of the bladder. On examining the rectal orifice, the prostate gland was found so much enlarged that it almost completely filled the rectal pouch.

Treatment was given through the rectum with the Overall rectal electrode, the flat surface against the gland, with 12 to 15 *m. a.* current from the negative pole, for ten minutes; the positive electrode, a large sponge wet with salt water and crowded against the perineum between the thighs. Three treatments a week were given for

*Read before the Fortieth Annual Meeting of the Southwestern Kentucky Medical Association, at Paducah, Ky., May, 11, 1910.

ten weeks, and the patient was dismissed with a normal prostate gland and all of his old symptoms gone. This was eighteen months ago, and he is still free from any prostatic trouble. The man experienced much relief from the beginning of treatment.

A few years ago, the writer advised a man with an enlarged prostate to have it removed with the knife. He did so, and although he was operated upon by a good surgeon, he died a few months later from septicemia, as a result of the operation. All inflammatory exudates and hypertrophic tissue can be removed with the negative pole of the constant current. Dr. G. Betton Massey of Philadelphia has tabulated 101 cases of fibroid tumors of the uterus which he treated with electricity, with 76 absolute cures and more or less improvement in nearly all of the remaining 25 cases. One of these tumors, he states, was larger than a full-grown head, and not a vestige of it was left after the treatment.

One thing can be said of electrotherapy, and much to its credit, namely, if it does no good, it at least can do no harm if intelligently used.

Ringworm of the Beard

Case three is one of ringworm on the bearded portion of the face. The patient, a farmer from Illinois, thirty-one years old, came to me for x-ray treatment for his trouble. The right side of his face, including half of the upper lip, was a solid mass of inflamed tissue and pustules. The beard, which was very thick and half an inch long, was filled with pus secretions. His treatment had been with ammoniated mercury ointment, which gave no relief. He was forced to abandon his labors on the farm, on account of pain caused by the heat of the sun. X-ray treatment was given three times a week for four weeks, with a good deal of relief from pain, but in no other respect could I tell that he was benefited.

As the patient was now growing skeptical of any ultimate good results from the x-ray treatment, I concluded to try cataphoresis with the wall-plate. Improvising a cotton-covered electrode that could be pressed into the whole affected surface, I wetted it with a saturated solution of copper sulphate, attached it to the positive pole, and applied it to the face. A like pad electrode wet with a salt solution was placed on the opposite side of the face and attached to the negative pole, and then the current was turned on until the meter showed 55 *m. a.* In eight minutes the patient said that he could taste copper in his mouth. I then stopped treatment and asked the patient to return in a week, so I could see the result of the treatment. He did as requested, and stated that he had suffered no pain after the reaction of the last treatment. His face was dry and scaly, and no pus, the inflammation rapidly subsiding. His recovery was speedy and uninterrupted. The hair came out on his face from the x-ray treatment, but grew back again as thick as ever.

I saw this man eight months later and he was still entirely free from his ringworm. I have seen such cases come to the college clinics for months, treated by our best dermatologists, without a cure. One or two years' treatment is usually required to cure, and many are never cured.

The following are cases of malignancy, or cancer. These I treated by the ionization method originated by Dr. Massey, and the work is done as follows:

Zinc needles of any desired size, length and curve are coated with metallic mercury by first dipping them in dilute sulphuric acid and then into quicksilver. Thus coated with mercury, the needles are ready for use. One or more (according to the size of the cancer) such needle is stuck into the tumor and attached to the positive pole of the wall-plate or the ionization table, and with the dispersing electrode on some convenient portion of the body, the current is turned on sufficiently strong and long to destroy the growth and outlying cells of the disease. With this explanation of the work, I shall proceed with the details of cancer-case number one so treated.

Cancer of the Neck

A farmer, sixty-nine years old, with a cancer on his neck, just beneath and back

of the ear and overlying the carotid artery. The growth was 1½ x 2 inches in diameter, and ulcerating. The patient being chloroformed and placed upon the operating chair, eight small needles were stuck into the growth, and 425 *m. a.* of current from the ionization table turned on for sixty minutes, which destroyed the tissue in the growth and beyond the periphery for perhaps half an inch. The destruction of tissue is known by turning an ashen-gray or white color. The slough came away in six or seven days, but as the diseased tissue was still in evidence in the center of the growth, a second treatment was given with five needles, with 425 *m. a.* of current for twenty-five minutes. The necrosed tissue came away as it did in the first treatment, and the carotid artery could be seen to pulsate just beneath the overlying tissues, which were cancerous.

Treatment was then abandoned, as it would have been impossible to destroy the diseased tissue without fatal injury to the blood-vessel. The patient died of the disease a few months later. Had not the disease so closely encroached upon the carotid artery, this cancer unquestionably could have been cured, as the wound healed nicely where the diseased tissue was destroyed.

Cancer of the Temple

The second case is that of a German gardener, seventy-two years old, from Clinton, Kentucky. He was treated for cancer on his right temple, near the outer canthus of the eye, which involved about half of the upper and lower lids, The lesion on the temple was the size of a silver dime, and the granular mass on the lids was nearly as large as the end of the little finger, giving the patient quite an ugly appearance.

Cocaine anesthesia was used, and two zinc needles were buried in the growth on the temple only, and 50 *m. a.* of current was turned on for thirty minutes. This necrosed the diseased tissue, which came away in a slough in four or five days. The operation was then repeated with a needle in the diseased portion of either lid for thirty minutes, when the tissue changed from a red color to an ashen-white, which showed its destruction. The patient was then allowed to return to his home, he reporting in two weeks that he was doing fine. I had him return today for inspection, and whereas the wound has healed nicely, with little deformity to the general appearance of his eyelids, there remains a very small focus of diseased tissue at the outer corner of the eye, about the size of a buckshot.

In this condition, I now present this patient to the members of this society for inspection. To those of you who have not had experience in treating cancer, this patient might seem entirely cured, but the pearly nodule which I point out is cancerous, and I shall treat him again before he returns home and destroy the small point left. I do not know of any other treatment that could have been employed in this case successfully without sacrificing the eye, which has not been injured in the least.

Cancer of the Under Lip

Cases three and four are cancer in men, involving about one-fourth of the under lip. The needle was employed in both cases, just as described in the above case, and made good cures.

I have treated probably two hundred cases of cancer, during the past fifteen years, with zinc-chloride paste, with splendid results, but of course this agent cannot be employed where cancer involves the natural cavities of the body, as the eye, ear, nose, mouth, rectum and vagina, as the needles can.

As regards the number and size of the needles used in any given case, that would depend upon the size of the cancer to be treated. A malignant growth the size of a small pea would require one needle, stuck through its base, with 15 or 20 *m. a.* for twenty minutes. A cancer of the female breast would require six or eight needles of a diameter of a small telegraph wire, six inches long, with 700 to 1500 *m. a.* of current, for one or two hours, to accomplish destruction. I have used zinc-chloride paste in probably 200 cases of cancer, during the past fifteen years, with splendid results, but of course this agent can not be employed in the natural cavities of the body (such as the

eye, ear, nose, mouth, rectum and vagina), as the needles can.

I have seen and assisted Dr. Massey do this work with the happiest results, and can speak with confidence of its true value in malignancy. I have reported these cases as another added proof of the value of electrotherapeutics.

Chronic Headache

Neurological Advances in Its Diagnosis and Treatment

By TOM A. WILLIAMS, M. D., Washington, D. C.

THOSE who in conducting original investigations have occasion to consult textbooks and socalled authorities have been much struck by the manner in which unblushing copying goes on, year after year. An alleged fact, an exploded notion, a demolished theory, continues its pernicious course in edition after edition after it has been "scotched" and killed by the accurate research and clear conceptions of clinic and laboratory of our day. The discouragement from this cause to the thoughtful and careful student is incalculable. Sir Thomas Fraser used to say that it needed twenty years to catch a textbook lie. Thus on account of the enormous mass and unconnected and irrevelant details, which more often than not conflict with experience, the physician who consults a textbook when he is puzzled by a case of chronic or recurrent headache has recourse to a purely empirical manner of treatment.

"Hit or Miss" Therapy—Just for Relief

Very often in a case of chronic or recurrent headache the physician, if a dose of calomel fails, begins by giving analgesics before making a diagnosis. If the headache is metabolic, the relief obtained is only momentary, and the patient's last stage is worse than the first, for the coaltar preparations seriously interfere with nutrition and thus add to the burden already borne by the patient's organs.

This empirical hit-or-miss therapy is very injurious to the doctor's self-respect, as failure after failure accumulates. In time he also loses the respect of his patient, as to his ability at least, and the whole situation becomes impossible. The case is labeled functional, neurasthenic, neurotic, hysteric, or whatever name it happens to be fashionable to apply to what is not understood. As a matter of fact, the headache of nervous origin should be quite easy to distinguish from the functional headache due to disorder of the body. The cause of the latter may sometimes escape us and its treatment may fail, but it is nevertheless physical.

A New Humoral Pathology

In our student days it was the fashion to laugh at the pathological knowledge of our forebears, the humoralists. But modern study of the blood has changed this attitude, and we now know there is entering a humoral pathology which is becoming more precise daily.

The class relationship, for instance, of the epileptic diathesis to the other anemias is an acquired clinical fact which has been ascertained by experiment on animals also. Moreover, even the cellular elements change their proportions in this condition.

Now it is becoming increasingly evident that there is a very close relationship between epilepsy and migraine, and not only that, but that there is no real distinction between the pathogenesis of a definite hemicrania with the classical onset of nausea and vomiting, and perhaps the even commoner occasional headache not entirely lateral in distribution, and only occasionally accompanied by definite digestive crises. Moreover, the same kind of treatment is efficacious in each of these conditions, so much so, that

Charles Mercier has stated, after ten years' experience in the Charing Cross Psychopathic Dispensary, that he can cure any case of chronic headache which is not due to organic new formation. While not so sweeping, my own opinion has long had the same turn. I have found chronic headache of metabolic type most amenable, just as Spratling has found many types of epilepsy to be by no means the hopeless matter it is casually supposed.

We Must Know the Nutritional Process

In treatment, however, one must have the clear knowledge of the nutrimental processes and their disorders, and one must understand the relationship of the diet to these. Moreover, the physician must take into account the relationship of muscular and mental exertions and their adjustments to assimilation; and, then, the psychic factor in nutrition must be regulated. So the management of a case of chronic headache cannot be learned in a day, or without much reflection.

Not only so, but this type of headache can be foreseen and its occurrence obviated. True, a minute study of the psychical symptoms is needed, which often precedes its appearance even from one for two days. I have elsewhere alluded to the research of Mirto in this direction.

The Two Types of Headache

Two types of the reaction occur, one a depressive, the other, expansive. In the former a dull, thick feeling in the head occurs, generally in the morning. The patient may be irrascible; he may feel everything at sixes and sevens and himself incapable of adjustment. A transition to the expansive state consists of a savage manner, shown by feeling of intolerance and energy. On the other hand, the patient may feel unusually clear mentally, collected, and capable of the very finest work. He may have a desire to relate humorous experiences, to sing, to go out and spend money, and the like. Some one (or more) of these symptoms is the invariable precursor of a paroxysm of headache in quite a number of cases.

Experimental proof possibly is lacking, and even laboratory observations are perhaps insufficient to establish the direct relationship of the chronic intoxications which often cause headache and a condition which often follows these: namely, *la petite brightisme* of the French writers. It is pretty clear that the latter, however, eventuates into interstitial or diffuse nephritis, and clinical evidence points strongly to the direct sequence of the three conditions, headache—causing toxemia, *petite brightisme*, and chronic nephritis. Moreover, the same type of treatment, while it benefits the terminal conditions, will usually remove the second and is practically always successful in curing the first.

I need not discuss the symptoms and signs of the latter condition, but I wish to emphasize the blood-pressure index of the toxic state. Its measurement should never be omitted in any case suspected of metabolic disorders, and as at least 80 percent of headaches are metabolic, it would be a safe rule to measure the blood pressure of every patient with chronic headache.

The Chronic Meningeal Irritations

Meningism has become a definite clinical and pathological condition. It is usually the cause of the socalled nervous symptoms of exanthemata. The meningeal serosa reacts to the noxa as does the skin. Headache is usually the earliest symptom of the meningeal implication, although when the process happens to preponderate locally, a squint or a focal epilepsy may indicate implication of the cranial nerves or cortex, respectively. Even in these cases, however, nothing may be observed with the naked eye *post mortem*, but under the microscope vascular hyperaemia, edema or cellular exudation are seen.

However, we do not need to wait for the death of the patient in order to be pathologically certain, for diapedesis occurs in the arachnoid sac; so that by withdrawing the cerebrospinal fluid through a lumbar puncture we can ascertain, by counting the cells, that we have to do with an irritation of the meninges. The headache is probably due

to the increased tension caused by the inflammatory exudation from the meninges.

The Headache of Syphilis

I have drawn this picture in order to illustrate the mechanism of the headache in the chronic infection of syphilis. The pain in this disease has the same pathogenesis as in that of the more acute infections. Even in the secondary period there is an abundant pouring out of the fluid and of small round cells, and a tumefaction of the meninges, and it is quite possible that the meningitides of the tertiary period are direct sequellæ of this.

A few years will settle this, for in very few cases has a series of presymptomatic subarachnoid explorations have made. It is certain, however, that a severe chronic meningitis long precedes the clinical manifestations of tertiary syphilis of the nervous system.

The prophylactic significance of this is important, for, with the Wasserman test and lumbar puncture, we are now able to antici pate tabes dorsalis and paresis by long periods. The therapeutic power thus given us is illustrated by two cases (too long to cite here) reported earlier. It is true that the diagnosis in these cases did not depend upon the Wasserman test of lumbar puncture, and this brings me to another most important consideration.

Precision in Neurological Diagnosis

In the first of these cases the diagnosis was determined, primarily, by a modification of the sensibility of radicular distribution which needs for its determination a most careful neurological technic in order to avoid the sources of error inherent in exploring the sensations. The problem was to find the cause of a general infirmness and disability, headache, which had occurred without apparent cause and was of irritative character not usual in merely metabolic cephalalgias. The diagnosis was made more precise by psychologic examination. In the second case psychometry was the means used for the diagnosis.

Now, a neurological examination means a careful comparison of the motor functions on each side of the body by a series of test movements which clinical experience has shown to be the most convenient. It requires a careful estimation of the sensory acuteness of the patient, who must be placed in condition of position, temperature, and psychic relationship favorable to the functioning of his perceptions. The function of equilibration must be investigated by a series of tests with which recent work has furnished us. The various reflexes and the delicate *nuances* they reveal require particular attention. All these visible somatic reactions require for their appreciation a technical training just as arduous as that of the surgeon or bacteriologist. A neophyte can no more be trusted to form an opinion about an abnormal sensation-movement or reflex, or a beginner with the Wasserman reaction, than can a tyro safely enter the pelvis or abdomen or cranium.

But the psychologic examination is even more difficult. The sources of error are innumerable, and only the most rigid attention to detail and critical care can prevent gross mistakes. In this field much remains to be done, and even specialists strongly feel their own imperfections in this branch of clinical investigation.

Brain Tumors

The affection in which the application of this lesson is most striking is intracranial neoplasm. It can safely be postulated that any case of chronic headache which resists general regulation of the metabolic activity, where the blood pressure is not markedly increased and which does not appear to be syphilitic or psychogenetic should be submitted at the earliest possible moment to a thorough neurological examination, including minute investigation of the psychic functions, long before papilla edema [choked disk, papillitis], the inroad of a new growth in the cranium, can cause a modification in the functions of some center or tract. This can be ascertained by one of the number of tests the neurologists employs, even at a time when it has not yet caused the patient any inconvenience aside from the headache, and is not apparent to a cursory examination.

The tremendous importance of early diagnosis of these cases is becoming more and more apparent through the advance of cranial surgery. The decompressive operation in particular in even the gravest case may so alleviate pressures as to maintain life and preserve the sight until at a later date radical extirpation of a growth becomes possible.

Thus Collier has shown ("The Brain," 1904) that when severe intracranial pressure has occurred it often completely masks focal symptoms which at first would have made the diagnosis easily possible. For example, the hemianopia of a growth in the occipital lobe cannot be detected after the patient is blinded by a choking of the disk with the edema of increased tension within the dura. Again, a growth in the cerebellum in expanding may compress the pons and by pushing it away from the midline produce cranial nerve symptoms on the opposite side and thus mislead our diagnosis. Had the patient been seen earlier, a hemologist would have detected cerebellar symptoms in their uncomplicated incipiency.

Headache with inversion or interlacement of the visual color-fields for blue and red and contraction to white is not hysterical as has been so long supposed. These signs are pathognomonic of increased tension, and in cerebral tumors Cushing and Bordley have found them nearly always.

The "Neurotic" Headache

The term nervous headache should be applied only to one of psychogenetic mechanism, that is to say, one coming on in consequence of a mental, or psychologic, cause. Moreover, a fertile source of error here lies in the lack of precision of the patient's descriptions, and the name headache is often carelessly applied by a doctor who has not analyzed the patient's account or cross-examined him as to his sensations.

The socalled headaches typical of the psychasthenic state, for instance, are much more in the nature of a discomfort and annoyance than of an actual pain. Sensations of heat, cold, dragging, swelling to the point of bursting, twitching, gnawing, weight or emptiness, are frequent. The localization of these sensations has not the least importance. An interpretation of each sensation has been sought in the visceral sensations which it is supposed every organ communicates, the brain included. The function is known as cenesthesis, but it is difficult to demonstrate this.

It is pretty sure that actual pain is meningeal in origin and due to tension of the cerebral spinal fluid, and that it is a purely physical modification; although the circulatory changes which at least may aggravate any perturbations in intercephalic tension can arise psychically, that is, by mental impressions or emotions. There is no direct evidence, but may there not be a blush of the brain? It is quite certain, clinically, that some cases of headache are immediately provoked by painful emotion.

One must be careful to distinguish this, which is a real physical change of state, from the purely imaginary suffering of the true hysteric, who, from the intensity of her idea of pain, actually persuades herself that she is suffering pain, which, however, is not the case except in so far as her power of representation creates the delusion. This type, which as regards headache is rare, must be distinguished from the affectation of pain in which even the patient does not really believe, but which is assumed to excite commisseration. The word topoalgia has been applied to the nonsimulating type.

Confusion with Neuralgia

The apparent hyperalgesia of the painful regions is liable to cause confusion with a neuralgia, but in the latter the distribution conforms to that of a peripheral nerve, while the topoalgic area is that of a region; moreover, it sometimes is variable. It may be constant or it may occur in crises, lasting hours or days. A careful anamnesis will nearly always detect in these cases certain phobias, and a history of intellectual ruminations, tics or besetments. The technic in eliciting the obsessive psychosis is too long to insist upon here. It needs to be carefully distinguished from hysteria, for its treatment differs completely, as well as from the

organic states which the practician first thinks of when bodily functions are the subject of the patient's prepossessions.

I say nothing of the headache of ocular strain or of that due to referred pain, for they are by this time well known, I consider, to every physician, and there has been, indeed, a tendency in the former to exaggerate its importance. The latter is comparatively uncommon, and even when chronic it occurs only occasionally in exacerbations.

We have now considered the common forms of chronic headache, and we have found much new light from humoral pathology, neurological cytology, microscopical anatomy, the work of surgeons on the cerebrum—and, finally, psychological analysis of the subjective symptoms.

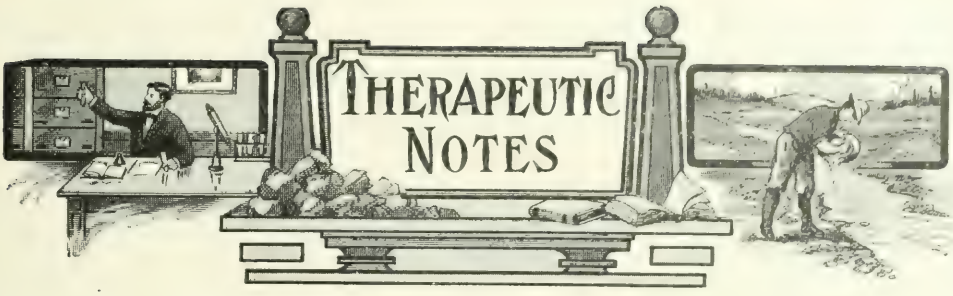
The therapeutic bearing of what I have said has been indicated, *en passant*. Its chief lesson is the enormous importance of a clear diagnosis, from which follow the only scientific and rational indications for treatment; and it is only in this way that any considerable measure of success can be attained in curing cases of chronic headache.

I can not undertake, now, even to summarize the treatment of the pathologic conditions and the various indications drawn from consideration of chemical pathology, pharmacodynamics, surgery, and psychiatry; but I shall have attained my object in presenting this brief dissertation if I convince you that in the great majority of cases of chronic headache there is a way out, and that we have the power to find that way; that we need no longer search the road by trying, as we reach it, each opening in the maze until we either find the right one or the patient passes out of our hands; and, moreover, that we have now more certain procedures of which to avail ourselves if we only choose to use the methods now placed in our hands by neurological diagnosis.

Ferget Yourself.

JEST ferget that you're the only struttin' thing upon the earth,
Throw some smiles around about you to help cheer the populace,
Jest interest yourself in others and try for all you're worth
To help 'em, and there will always be a glad look on your face.
Folks aint a going' to jump attendance at your ev'ry beck and call,
There are others that the good Lord is considerin' now and then,
It is well for you to recollect you're not so mighty tall
That you stand considerable above the common run o' men.
You may have a bunch o' money and a head chuck full o' sense,
But I 'low it aint the larnin' and it suttinly aint the price
That makes a man around these 'ere parts of any consequence,
But the man who smiles and does the best he can—he cuts the ice!
Recollect there's others we should consider once in a while,
You're not the only angel the Lord is raisin' for himself,
Remember there are others who are just pinin' for a smile,
So take a hunch and smile a little and jest ferget yourself.
It's just as true as gospel—if you wanter be well and glad,
And have a bunch o' friends, and prosper, and good things come your way
You must help the poor and needy and give joy to them that's sad;
Cut out your low-down cussedness and ferget yourself, I say.

G. F. B.



THYROID TREATMENT OF REGULARLY INTERMITTENT JOINT EFFUSIONS

P. Ribierre gives a historical sketch of regularly intermittent joint effusions, the syndrome, differentiation, etc., and reports a typical case in which analysis of the attacks, their periodical recurrence and the general condition suggested that the thyroid functioning might be at fault. The subsidence of the attacks during pregnancy and various other features of the disease sustain the assumption of defective glandular functioning as the main factor in the etiology, he is convinced.

His patient was a woman of 34. Under thyroid treatment her general condition improved, the periodicity and severity of the joint affection were materially modified, and finally tbe attacks ceased entirely. Nearly two years have elapsed to date since the last attack. Before the thyroid treatment was commenced they had recurred every ten days for nearly two years, affecting both knees. The thyroid treatment was given at intervals from October, 1905, to March, 1908. The details of the case and of treatment are given in the *Bulletin de la Societé Médicale des Hopital de Paris*, 1910, p. 96.

FIBROLYSIN IN OBESITY

Dr. Riedel noticed, in a large number of cases in which he used fibrolysin for surgical disease, that the remedy influenced obesity favorably. In one case, a woman, the weekly reduction amounted to 2 pounds, and 26 pounds in all after a four months' use of one ampule of 2.3 Grams every second day, injected hypodermically between the shoulder-blades. Another woman patient received almost daily an injection of from 2.3 up to 4.6 Grams for four weeks, and she experienced a reduction of about 11 pounds. Phenomena which would indicate a loss of albumin were not noticed.—*Muenchen. Med. Wochenschr.*, No. 28, 1909, in *Pharm. Zentralh.*, 1910, p. 16.

HYOSCINE-MORPHINE-CACTIN FOR PAIN

John Fearn, in *The Eclectic Medical Journal* (June, 1910, p. 279), writes as follows:

"A few months ago I was called to one of my old patients. Years before I knew her she had an abdominal operation; no particular care seemed to have been taken to support the abdomen, and, in consequence, she had a bad ventral hernia. At the time I took her case adhesions were rather extensive, and I advised an operation for relief. But she would not hear of it. For years now she has been a great sufferer, and to her original difficulty chronic rheumatism has been added. When I arrived at the house that night I could hear cries before entering. I found her in a condition of nervous tension and severe pain, pitiful to behold.

"Here, surely, was a case for a pain obtunder. I took five tablets of hyoscine-morphine-cactin mixture, dissolved them in two-thirds of a glass of water, and gave two teaspoonfuls of this solution, ordering one teaspoonful every hour thereafter while needed. I stayed some time, assuring the woman that she would get relief, thus using suggestive influence. Her position was made as comfortable as possible in bed; the room was kept very quiet. She was soon relieved, and, being exhausted with suffering, she fell

asleep. A dose given occasionally through the night secured good, restful sleep. This kind of experience could be repeated here, but enough. Suffice it to say it is successful.

"I will mention just a few specific medicines to be used in this connection. Specific gelsemium, specific rhus tox., specific veratrum viride, specific nux vomica, and many others of this class, can be used to relieve pain. And they will prove better, on the whole, than opiates, and their proper use is never attended with danger or unpleasant consequences."

SOME USES OF THYROID GLAND

Dr. Emma W. Demare reports on her experience with thyroid, in *The Western Medical Review* for May, 1910. Encouraged by the curative effect of thyroid extract in cases of cretinism, the author has tried it in other children's diseases, and it is now her routine medication whenever she deals with infantile constipation and diarrhea, as also cyclic vomiting and marasmus. Thyroid gland, she states, increases the flow of milk when it threatens to stop, and once reestablished very little of it will keep it going.

This agent further controls menorrhagia and metrorrhagia, it causes fibroid tumors to disappear; when given at the time of the menopause, it frees the woman from the so-called rheumatic pains and the other disagreeable accompanying manifestations.

Thyroid gland, further, is a sedative to the irritability and despondency and physical discomfort of old age. It has also had great effects in cases resembling senile dementia and in nervous disturbances.

ALBUMINURIA AND URINARY ACIDS

Rud. Von Hoesslin, at the June, 1909, meeting of the Aerztliche Verein of Munich, called attention to the dependence of albuminuria on the acid-contents of the urine. In a series of patients with chronic parenchymatous nephritis and high acidity of the urine neither rest in bed nor climatic treatment was of any avail. Upon the administration, however, of alkaline waters or of sodium bicarbonate (2 1-4 drams per day) the albuminuria either diminished considerably or disappeared entirely, while with lessened ingestion of alkalis the albuminuria increased again. Along with the diminution of the albumin there also was noticed decrease of the high blood pressure.—*Wien. Med. Woch.*, 1910, col. 42.

TREATMENT OF ENURESIS NOCTURNA

Cahier (*Arch. d. Med. et Pharm.*, June, 1909; through *Der Militaerarzt*, April 29, 1910) has had good success in enuresis from injections of from 60 to 70 Grams of normal serum on either side of the perineum. He thinks that this stimulated the striated muscles of the membranous portion of the urethra and the neck of the bladder and thereby improved the condition. The large swelling which resulted from the injection was soon absorbed.

ECLAMPSIA AND MORPHINE

"Doctor" writes in *The West Virginia Medical Journal* for April, 1910, concerning the use of H-M-C in eclampsia as follows:

"There are two varieties of puerperal eclampsia, one strictly due to toxemia which may occur in any pregnancy; for this the remedy is depletion by the use of enemas, and of veratrine. The other is the form frequently met with in primiparas, where toxemia is not very marked, at least is not present in sufficient degree to cause convulsions alone; but we have, on the other hand, a very marked nervous disequilibrium due to the natural apprehension felt by the woman on facing for the first time this, to her, frightful, ordeal. Owing to the nervous condition in which she is, some comparatively small causes will give rise to convulsions. This is one of the nervous forms which has won for morphine its repute in these cases, for in the true toxemic forms it can only be a disastrous medication.

"Whenever morphine is indicated the H-M-C combination will accomplish the object better and with less peril, hence in

these cases, and in these alone, H-M-C is well fitted to give relief. No opiate or other remedy which tends to lock up toxins in the body should be permitted in true toxemic cases. The watchword in these is elimination, and, again, elimination. In most cases the earliest possible delivery and the control of the convulsions by chloroform are indicated."

THE ENEMA IN TYPHOID FEVER

The treatment of typhoid fever presents many indications for an enema and Drueck thinks that it is many times forgotten. For the diarrhea a hot enema of two to three pints, and after it is voided a cold enema of one pint is of value. For the constipation which sometimes displaces the diarrhea and for tympanites and meningitis a copious coloclyster at 95° F. may be administered twice daily, and yellow soap or one dram of turpentine may be added to this. For the high temperature or delirium a cold enema at 70° F. is advised, to be retained for fifteen minutes and repeated every three hours until the temperature reaches 102° F. But with a high temperature and a cold skin we have a different condition and we want the stimulation of a hot enema and the cold friction rub to the skin. For intestinal hemorrhage a rectal irrigation with ice water is of value and two days after the hemorrhage has ceased a cleansing coloclyster at 75° F. to remove decomposing blood clots from the bowel. Gastric irritation calls for the withdrawal of food by the mouth and the giving of nutrient enemata.

ON THE USE OF IODINE IN GOITER

F. Pineles (*Wien. Klin. Woch.* through *Muench. Med. Woch.*, 1910, p. 656) reports on six cases of goiter in women from 43 to 64 years old, in whom even relatively small doses of sodium or potassium iodide (from 1.5 to 4.5 grains per day) produced symptoms of thyreoidism. A similar sensitiveness to iodine has been observed in Basedow's disease. Of the six patients two had a family history of diabetes, two one of Basedow's disease and two one of neuropathic tendency. The author assumes that this fact may explain a disposition for iodine-intolerance and urges proper care in patients with a family history of diabetes, Basedow's disease or neurasthenia.

MONOBROMATE OF CAMPHOR IN CHOREA

Giorgio Ghetti recommends in the *Gazzetta degli ospedali*, 1910, p. 313 (rev. *Wien. Med. Woch.* 1910, col. 1299) monobromate of camphor for chorea. The remedy is borne well, even in doses of 2.0 Gm. (30 grains) *pro die* and no unfavorable sequelæ have been observed. The effect seems to be more energetic than that of arsenic.

PRECORDIAL DISTRESS DURING THE MENOPAUSE

Dr. Ferreira is cited in the *Gazette des Hopitaux* for April 16, 1910, as prescribing the following mixture:

Elixir paregoric	Gms. 20
Fl. ext. cact. grandiflor.	Gm. 1
Fl. ext. viburn. prunifol.	Gm. 1
Fl. ext. piscidiae erythrinae	Gms. 5

CONGENITAL SCOLIOSIS

Congenital scoliosis may not be as rare as commonly thought, still it is but imperfectly known at the present time.

Two cases were lately presented by M. Coville of Orleans to the Societé de Chirurgie de Paris, one being that of a boy three and a half years old, the other that of a girl ten and a half years of age in whom the deformities had been noticed during the first weeks of her life, both growing progressively worse. The deformity consisted in a considerable angular flexion, observed radiographically.

In the one case "there was a triangular bony nodule between the eleventh and twelfth dorsal vertebræ which produced an abrupt inward flexion of the spine at this level, and another nodule of the same form between the fifteenth and sixteenth dorsal, producing an additional inward curving.

In the other case the second dorsal vertebra was deformed on the right side alone, and formed a bony angle with its apex turned to the left, and the dorsal scoliosis was compensated by a convexity to the left, which alone directed attention to the scoliosis."

Of this rare form of congenital scoliosis, including that with the more abrupt curve, the author describes two varieties, viz., (a) that which arises from a fault of development such as a deficiency, or exaggerated multiplication, or fusion of vertebral bodies; (b) that coincident with other faults of development such as fetal rachitism, eventuration, and spina bifida.—*La Province Médicale*, 1910, p. 6.

TREATMENT FOR WHOOPING-COUGH

Castro presents the rational treatment of pertussis in the following schematic form.:

	Dominant	
For the parasitic element		calcium sulphide
	Variant	
Catarrhal period	Catarrhal element	Helenin
	Spasmodic element	Monobromated camphor
Spasmodic period	Spasm of glottis	Hyoscyamine Atropine valerianate
	Irritability of glottis	Monobromated camphor
	Intermittence of access	Quinine hydroferrocyanide Quinine hydrobromide
	Viscosity of sputa	Scillitin
	Impossibility of expectoration	Emetine
	Cardiac ataxia	Digitalin
	Hemorrhages	Ergotin
	Insomnia	Narceine Codeine Butyl chloral
	Inappetence	Quassin
	Vomiting	Morphine
	Atony of the vagus system	Apomorphine
	Catarrhal secretion	Ammonium benzoate
Period of recovery	General debility	Brucine Strychnine hypophosphite Iron phosphate
	Anemia	Calcium hypophosphite Sodium hypophosphite

ABSORPTION AND ELIMINATION OF DRUGS

Brady said that while ipecac required about fifteen minutes to act as an emetic, instantaneous emesis followed copper sulphate in doses of one grain, in a little water, for a child.

Amyl nitrite is instantaneous in action and the effect lasts twenty minutes. Nitroglycerin acts in three minutes by the mouth. Sodium nitrite is absorbed in eight minutes from the stomach and eliminated in three hours. Ammonium salts exert their influence for three hours. Cocaine requires repetition every two hours to maintain its effect. Tincture of aconite by the mouth shows its effect in fifteen minutes and is completely eliminated in three hours. Atropine acts in half an hour and is eliminated in two hours. Laudanum acts in twenty minutes by the mouth, morphine hypodermically in five minutes.

Drugs markedly influencing absorption and secretion, like opium and belladonna, are consequently cumulative, subsequent doses being absorbed and eliminated more slowly than the earlier ones. A single dose of opium requires forty-eight hours for complete elimination.—*Therapeutic Gazette.*

ENEMAS IN CHOLERA INFANTUM AND CHOLERA MORBUS

Dr. Charles J. Drueck (*Medical Record*, July 9, 1910) says that in the treatment of these diseases a hot enema (110° F.) may be given after each stool to remove the irritating and infectious material from the colon and reduce the frequency of the stools. To this may be added any necessary astringents, such as zinc sulphate, 1 to 3 grains to a 6-ounce enema, or an equal strength of silver nitrate or lead acetate, or 3 drams of bismuth subnitrate. Where there is a great deal of griping pain 2 to 4 drops of laudanum may be given in 2 drams of starch water. To reduce the fever a cold enema may be given as outlined above. For collapse a large warm coloclyster at 100° F. should be administered and retained.

CONSTIPATION AND GENERAL INFECTION

The *Dietetic and Hygienic Gazette* calls attention to the studies on acute poliomyelitis, by Leiner and Weisner, which seem to prove that constipation may be a prominent factor of general infection. Flexner and Lewis produced this disease in monkeys by inject-

ing the virus into the brain, spinal canal, veins and elsewhere, but not by feeding it. Evidently the monkey has some means for destroying the poison in his gastrointestinal tract. The European workers, by first giving laudanum to check peristalsis, have succeeded in producing the disease by virus introduced through a stomach tube.

The *Gazette* goes on to say: "The long-guessed truth of the effects of constipations is thus made a definite fact, and the importance of a thorough toilet of the inner surface of the body is made so plain that we have no excuse for neglect of so simple a measure of hygiene. Like other measures for maintaining health, this needs to be impressed in early life. Most parents are anxious lest their children appear in public with soiled hands or face, but they take little or no interest in the degree of cleanliness of their food canals which, so far as health is concerned, is of far more moment."

DEATH FROM A SALINE ENEMA

Brooks reports, in *The New York Medical Record*, a case in which a patient was given three enemas, of one pint each, of saturated solution of sodium chloride. The patient became unconscious, the pulse small, 120, temperature 101° F., pupils contracted and failed to react to light. The temperature rose to 109° F. per rectum, respiration became rapid, shallow and difficult, and the patient died eight hours after leaving the table on which she had been operated for appendicitis. Forty minutes before death she had a convulsive seizure lasting ten minutes, and a few minutes before death she passed a quart of blood-stained gelatinous material from the bowel. It was later found that the nurse had given a saturated solution of sodium chloride instead of normal saline solution.

THE ACTION OF AESCULUS

G. B. Stearns has the following to say in *The North American Journal of Homeopathy*, concerning æsculus: "While this drug is well known for its action on the rectum, provings develop even more prominently symptoms in the throat, nose and lungs, and in one experiment hyperemia of the cervical glands. The throat symptoms found were burning, constriction and rawness with hoarseness. With this was a short cough induced by a deep breath, by swallowing, and particularly by speaking. Pains in the chest, also tightness and rawness were increased by inspiration. The nasal symptoms were dryness, burning or rawness, like a supervening coryza, which soon developed. Inspired air felt cold as after taking peppermint. Sensitiveness of the nasal passages and the throat to the inspired air is the leading modality, burning and rawness the predominant sensation; in some cases burning and smarting in the eyes with stinging or shooting pains about the orbit. Dryness of the affected mucous membranes seemed to be a characteristic.

A CASE OF PELLAGRA TREATED BY APPENDICOSTOMY

Drs. Henry Norris and M. H. Biggs publish a preliminary report of a case of pellagra in which they did an appendicostomy for the purpose of irrigating the colon and the ileum and in which, at the time of reporting the patient had already experienced some relief. (*The Charlotte Medical Journal*, July, 1910.)

The patient was a white woman, age 37, who had suffered off and on from symptoms referable to pellagra for nine years. In May, 1910, a diarrhea developed, which consisted of three to four stools each day with the same number each night. Occasionally the movements contained mucus and blood. No medicines had any influence upon the diarrhea, which has been continuous. The hands, feet and forehead present a reddened, scaly eruption with a very severe burning, which had first appeared nine years ago. The mouth is sore and there is a marked increase in the flow of saliva. The eruption began as a redness like sunburn and then got bluish-brown and scaly.

After due explanation of the purpose of the operation, to which the patient readily consented, she was prepared for laparotomy

and the abdomen was opened. The appendix was found and brought up through the wound and the cecum was anchored to the parietal peritoneum by four sutures of number-two silk. The abdominal wound was then closed by catgut sutures in tiers. The appendix was anchored by one silkworm-gut suture at the skin surface. Twenty six hours later, the patient having rallied well from the effects of the operation, the appendix was cut directly across and the colonic irrigations with normal salt solution at body temperature were commenced.

We shall watch with interest the later reports on the progress of this interesting case.

THE SIMPLE ENEMA

Dr. Charles J. Drueck (*Medical Record*, July 9, 1910,) says, speaking on the use of the enema, that water should have a temperature of 95° to 100° F. This temperature causes the least reaction and peristalsis. The smallest quantity of water that will suffice must be used, because the colon may easily be overdistended and the patient thus suffer irreparable damage. Large quantities of fluid should never be used, as they produce atony of the bowel by overstretching, just as atony of the anal sphincter is produced by stretching with the speculum. One quart of water should be the maximum and when we wish to stimulate peristalsis one-half pint of cold water is better than a large warm enema. To increase the effect of the enema, a teaspoonful of salt, molasses, or soap may be added, or one-half ounce of castor oil, glycerin, or oil of turpentine. Any of these added to the enema irritates the mucous membrane, removes the mucus from the bowel, and softens the fecal masses, thus aiding a prompt evacuation.

In atony of the bowel when a large part of the enema is retained, instead of being voided, the colon may be stimulated to contraction by applying a cold towel to the abdomen and lower back. If this does not suffice, the enema may be withdrawn by inserting a colon tube. An enema of a quart must never be allowed to remain in the colon, as it positively produces paresis; and, above all, one should never add insult to injury by injecting another quart before the first is withdrawn.

If there is a desire to expel the enema prematurely, it may be controlled by pressing a folded towel firmly against the anus.

The simple enema to unload the bowel may be given with the patient in the sitting or recumbent position. In these positions the liquid is retained in the sigmoid and lower descending colon. Therefore, one quart is the maximum adult limit. One should always be careful in giving an enema not to introduce air into the bowel as that stimulates evacuation and sometimes causes colic.

THE ENEMA IN COLIC

Dr. Drueck says that when bowel pain is not due to inflammation but rather to pent-up intestinal gases or to enteralgia, the hot rectal irrigation gives good results. Also in ovaritis and salpingitis. If, however, the rectal irrigation is not convenient, the nurse can give the hot enema. One or two pints of hot water is injected into the sigmoid and colon and retained for five minutes. It is then expelled and more injected. This is repeated three to six times. The whole treatment may be repeated two or three times each day. The rectal tip of the syringe will be sufficient and the rectal tube is not necessary. The patient rests on her back to prevent the water passing high up in the bowel. With the rectal irrigator the hot solution flows out continuously as it enters. It does not distend the tissues but bathes all of the parts with the same temperature during the whole treatment. It is, of course, much more convenient for the patient and physician.

LEDUM PALUSTRE FOR INSECT BITES

G. Sieffert of Paris recommends the application of the tincture of ledum palustre (marsh-tea) to insect's bites, claiming it to give immediate relief.—From *Leipz. Zeitschr.* f. Homœopathie, 1910, p. 94; in *Pharmaz. Zentralh.*, 1910, p. 358.

The Need of Studying Senility

III

We can now approach freely the question and ask, What is senility? Is it a disease, as Cicero described it, and as the greater part of physicians have accepted it? For do you not see that this antique Latin phrase has been adopted as an epigraph for the most recent work on the diseases of old persons?

I believe I know and understand your answer, which is in the affirmative, and old age is for you, too, a disease.

I admit, therefore, for the moment, that old age may be a disease if by disease we are to understand an entire modification of the normal physiological state. But then it may become necessary to establish first what it is that we agree to consider a normal physiological state.

If we were to take all the functions of a healthy adult as a criterion of the normal state, then we evidently could compare every function in the adult with the same function in the old and thus the establishment of notable differences would be an easy matter. For so far as concerns modifications in the physiologic functions, you will readily include the changes occurring in the texture of the organs, since in effect the two terms amount to the same thing in the economy of the old person. Here, also, will apply the remark of Charcot, who correctly said that some principal forms of modifications are of such a nature as to permit of their being confounded with certain lesions that constitute types of pathological alterations.

Hence it is that certain modifications due to aging and certain lesions due to a real pathological state are identical, and this approaching of the two types seems to be logical, and so it also appears to be right to include senility in the list of diseases.

But is it quite correct to speak of a disease as only a modification of a normal state? If so, then is the period of development also a disease, for here also we observe decidedly appreciable differences between the functions during growth and during adult age—and this latter is to represent the normal state?

And if you should find that I am forcing a little too much the meaning of terms and the assumed similarity appears exaggerated, my excuse lies exactly in the necessity of giving a forced representation of these similarities, lest we be found using words idly and hold ourselves to mere appearances. For, continuing our comparisons, do we not come, at last, to see precisely that during growth these differences between the infantile and the adult states, which are not considered as constituting a pathological state, do at times take on an intensity that comes close to an organic lesion and a functional disturbance? At this point we speak of disease, but only at this point. Just here we consider the organism as *under the influence of a particular mode of existence peculiar to this particular period* during which we are observing it, and we are very careful when we speak here of disease for we are aware of differences.

Disease is actually established only then when modifications are of a nature to hinder the march of functioning toward the end to which it naturally tends, that is, to the functioning in the adult state, but up to this point it is nothing more than a very active functioning, it is the period of most intense functioning.

Why should it not be the same with senility? It is a mistake to consider this state as a disease only then when the functions of an old person are so different from the normal that there is a break in their equilibrium and there is impairment of the general health.

But before that period, before this *pathologic moment* (using well-precisioned terms) has arrived, the organism was under the influence of a mode of existence preculiar to this period, during which we observe a tendency toward diminished intensity of functions. There is here nothing more than a slackening of function; functioning is at a minimum. Is this disease? No! not yet, and still we already have here senility!

We must, therefore, define this period precisely, which is a transitional stage from the normal state to that which we shall describe further on and constitutes a real anatomic lesion with a physiologic disorder originating from senility. It is during the lapsing time when every organ is becoming old that the physician will have most to do in counteracting a senilizing which is too vigorously invading the organism. It is while the organism is aging and not when it has already become senile that we physicians are to come to its aid and to defend it. If you find yourselves able to suppress the causes of senility proper in your patient, do you not think that it would be more in your power to arrest this march in advance before it was too late and conditions became unchangeable?

If anything deserves attention it is the fact that observers should have occupied themselves so long a time with mere appearances so that they failed to notice how much confusion ordinarily arose as between a disease that had become established and one that was in the process of being established. I know well that often a latent period is spoken of. But this expression ought not to satisfy us in the case of senility, for this phrase expresses only that the disease is already established, and to speak properly of a "latent" disease, a disease naturally must already exist, only that it has not revealed itself either to the patient or the physician by its characteristic signs; nevertheless, the disease does exist, whether felt or not.

Take an example. If you have observed a person presenting all the symptoms of chronic alcoholism you begin to search for the signs of this intoxication. You continue your investigation in order to establish rigorously that the case in point is one of alcoholism; and alcoholism is accompanied by organic lesions with functional troubles depending upon them, and these organic changes became definitely established before the symptomatic troubles of the disease have followed in their train. But take that same person immediately after he took to drinking, is he not alcoholized? No! for the symptomatology of alcoholism is so clearly established that it constitutes a typical instance of a disease. It is correct to say that the person alcoholized himself, but he has not yet reached the state of alcoholism.

In the same way we must look upon a person before the organic changes with their train of troubles have constituted a definite and unchangeable senility. This aging person ought to be looked upon not as in the "latent" period of the disease, for not announcing its presence does not preclude a disease from being established. It were better to study the person as being senilized, and it is imperative to suppress as early as possible the marks of the senilizing process before senility becomes an actuality. It is during all this period that the slow work is going on which Canstatt described under the term of "*senile involution*," a designation that is most appropriate. Unfortunately writers after him have employed the term in a modified and incorrect sense, in that they confine it to describe an established pathologic state, while the German originator of this expression intended to denote not a

lesion made but a transformation accomplished little by little by a slow retrogression, but which, in the long run, may end in a *definitely established pathological state.*

This is an idea embodying much truth, and it could have been made productive of much good without the alteration to which it was subjected; it is an idea, it seems to me, that must necessarily be taken up again. We must substitute in place of the ideas of a lesion and of disease a conception less limited, more true, and broader.

It is important, above everything else, to think less of senility as something altogether fixed and immutable. It were better to regard senescence, or aging, as a process, so that we may combat its first signs, suppress the causes, recognize the different aspects, learn to check the progressive march, and retard as much as possible the establishment of irremovable and thenceforth incurable lesions.

Will it, then, be imputed to me as saying that a senility which has become established is to be neglected and relegated to things useless and of little importance? If so, it would be giving a forced meaning to my words. Senility does exist, and with its lesions and functional troubles, and we will study all these together. We shall then see how interesting are the researches made in this division of pathology. We shall have to take up the different characteristics that range senility among the diseases befalling the aged individual, and we shall try to carry out our program despite its amplitude and its complexity.

But before acquainting ourselves with the senile person, I purpose to make a study of the person who is senilizing, and I believe that it will be very useful to us to know first how a person does become old before we undertake the study of the phenomena of old age. We shall therefore devote the present time to the analysis of the stages of senile involution.

Nor should you think that there will be any arbitrary and mere artificial divisions. And when I indicated that it is necessary to distinguish two stages in the evolution of senility, I can defend my conception by referring to the data of biology, which enable us to view senility as constituting a much longer period of life than hitherto has been possible.

The evolution of being is usually described as having three stages, and living creatures were described as being born, growing, and maturing. But why leave out the period of decrescence, the period during which the living being is on the way, sometimes so extremely slowly, toward death? This period is as inevitable as are the others, and in the normal existence of every being the process of decrescence is biologically as necessary as that of accrescence so long as its death is not accidental, but natural—when death comes as the sole result of the long-continued work to which the organs of the being have been subject in their functioning.

From all this, therefore, we ought to regard senescence, the process of growing old, not as a disease but as a phase of life, a period of it. Today, after you have been shown how important is the study of old age, we will end our meditations with the conclusion that the modifications which occur in the aged person are not a disease, they are only a different mode of existence, a physiologic stage in the same way as is infancy and adult age.

In the next lecture I shall develop this idea and shall refer to the well-ascertained biologic facts. In a word, I shall strengthen my position when I prove to you that old age is the normal decadence, the physiologic period intermediate between growing and death.—Translated from "Leçons sur les Maladies des Vieillards," by DOCTOR BOY TEISSIER.

SPIROSAL AND CORYFIN IN OTOLOGY

Lubinski of Berlin has found spirosal, which is a monosalicylic ester of ethyleuglycol, very useful in the treatment of furuncles in the external auditory canal. A strip of sterilized gauze about 2 cm. (4-5 of an inch) broad is saturated with the liquid and cautiously pressed with a fine pair of ear-tweezers deeply between the swollen and

painful surfaces of the canal. A distinct reduction of the pain and of the inflammatory process is obtained in a few days. When suppuration had already taken place, then a preliminary antiseptic cleansing must precede the treatment. The spirosal is used pure; or when the weather is cool and the substance is apt to congeal, a 50-percent alcoholic solution, which is equal to Bayer's "spirosal solution" (in original package), may be employed.

Coryfin is an ethylglycolic-acid ester of menthol, a remedy similar to the menthol pencils ["lump" would be more appropriate —THE GLEANER] used in migraine, but is more enduring in its soothing effect. In cases of nervous itching of the ear or of a pricking, irritant sensation deep in the auditory canal, caused by a dry condition consequent upon a lack of gland secretion, the introduction of a pledget of cotton saturated with coryfin generally stops the itching immediately.

Coryfin "Bayer" may be prescribed in the following form: Coryfin, 1.0 (grs. 15); vaseline, 3.0 (grs. 45); anhydrous lanolin, 2.0 (grs. 30). Very useful also is a combination of coryfin with spirosal for the above-mentioned affections of the ear. They may be combined as follows: Spirosal, coryfin, of each 75 grains. Or, spirosal, coryfin, of each 35 grains; vaseline, 45 grains; anhydrous lanolin, 30 grains.—*Therapie der Gegenwart*, Oct., 1909; through *Pharmaz'utische Zentralhal'e*, 1910, p. 215.

[THE GLEANER'S etymological consciousness is pained to the quick when he has to join "*logos*" to "*ous, ootos*," in connection with therapy. Why not "otoiatry"? How often we have to pay unwilling obedience to antiquated error!]

MENSAN AS A HEMOSTATIC

Mensan is prepared from the hazelnut by Gude of Leipzig. Experiments with it were made clinically by Boruttan and Davidsohn. It does not exert any effect upon the heart or vascular system except only a decidedly contracting one. The preparation has proved effectual in puerperal hemorrhage from various causes. Side-effects occurred occasionally, as for instance pressure in the head, epistaxis, and other vascular disturbances. The dose given was a tablespoonful twice a day during the hemorrhage.—*Therap. Monatsh.* Jan., 1910; through *Pharm. Zentralh.*, 1910, p. 238.

OVARADEN-TRIFERRIN IN GYNECOLOGY

To save separate dispensing of ovarian preparation and of iron, Prochownik of Hamburg ordered from the firm Knoll & Co., tablets containing ovaraden, 0.3 Grams (grs. 4 1-2), and triferrin, 0.1 Gram (grs. 1 1-2). Prochownik has used these tablets for the last seven years, mainly in the treatment of females who were suffering from exhausting diseases consequent upon the removal of internal generative organs, or to those who suffered from troubles incident to the climacteric period. The tablets did good also in those cases of amenorrhea and anemia in which no removal of genital organs had taken place.

In cases of undeveloped sexual organs the tablets relieved, in great part, the complaints usually connected with that condition, which condition consisted in deficient development of the ovaries or uterus (in some instances the complaint being painful) or absent menses in connection with chlorosis and general persistent infantile development. Cases also of Basedow's disease, so far as it might be connected with diminutive genitals, were also favorably influenced by these tablets. But females who were affected with severe diseases peculiar to their sex or with psychologic troubles were not benefited by ovaraden-triferrin.

The effect of the remedy is only temporary, and its use has to be resumed from time to time until permanent results are obtained. This may require at least two hundred tablets, given on the average of two a day, one each after the principal meal, in order to effect a cure. No untoward effects on the stomach were observed.—*Zentralbl. f. Gynakologie*, 1909, No. 46; through *Pharmaz. Zentralhalle*, 1910, p. 305.

An Attack on Doctors Who Dispense Their Own Remedies

In the editorial department, this issue, we refer to a leaflet being sent out by the N. A. R. D. (being a reprint of an article which appeared in *Notes*, the official organ) for free distribution by the druggist to the laity. We reprint it entire below:

WHO MAKES YOUR MEDICINE?

THE DANGER OF TAKING MEDICINES NOT MADE BY EXPERIENCED DRUGGISTS

When you are sick and seek medicinal relief, who would you rather have make your medicines for you—a person who is skilled in that art and who has made the art of preparing medicine his life study, or is any inexperienced person good enough for you?

This is a serious question for the public to think about. It needs much more attention from you than you have heretofore devoted to it. You may not think so when you are well, but when you are sick, you know the best in medicine is none too good.

CONSIDER THIS WELL

According to the laws of our state, it is unlawful for any person to manufacture, compound or dispense any drug, medicine or poison, unless such person is a "registered pharmacist." To become a registered pharmacist, the person must have most excellent training in the art of pharmacy, and he must prove by a very thorough examination before the State Board of Pharmacy that he is in every way properly fitted to prepare medicine for the sick, and only then is a license as "registered pharmacist" issued to him, which he must renew every year.

Added to this, your druggist is obliged to sell pure medicines only, and the druggist as a rule goes even further and sells not only pure medicines, but medicines of the best and highest standard.

NOT FITTED TO GIVE YOU MEDICINE

Pharmacy laws are intended for the protection of the public, as we all well know, but in some inconsistent manner, all doctors are exempt from these laws. This at first may seem perfectly proper, but every really high-class physician knows that such power should never have been given to the members of the medical profession, nor will these high-class and intelligent men take advantage of it by dispensing their own medicines, because they know they are not fitted for it either by experience or by education.

YOU GET POOR MEDICINE

It is, however, not enough that the physician who gives his own medicines knows practically nothing of pharmacy, but when you take that medicine you are, as a rule, taking an inferior grade of medicine, and why?

Because the manufacturers of doctors' medicines know that these doctors know little about medicine, so they can safely sell him cheap, and often worthless stuff—goods which they would not dare sell to a druggist, because what the druggist sells must be up to the standard prescribed by the law or he is liable to penalties.

The only thing such a doctor (who gives his own medicines to his patients) knows, or wants to know, is that he can buy cheap, and so make more money out of his practice. He cares not so much for his sick patient, as he does of the amount of money he can squeeze out of him, otherwise he would do what every right-minded physician does, write a prescription for what you should have.

ANOTHER DANGER

And this brings us to another great danger that the people are in who let their doctor give them medicine. Every human being is liable to make a mistake, and if your doctor makes a mistake, it may cost a life and you could not even sue the doctor for murder.

Therefore if you employ a doctor who writes prescriptions, and he should make a mistake, the druggist is sure to discover it, and danger or injury is avoided; and to the credit of the druggists be it said (and there are almost 100,000 registered druggists in the United States) that seldom has one made a mistake that has resulted fatally. Can the doctor who gives his own medicine say this? You can answer this for yourself.

FOR YOU TO DECIDE, PERSONALLY

Therefore it is for you yourself to decide who will make the medicine that you take. Will it be the druggist who makes it from the prescription of a high-class doctor, and with the best of ingredients,

or will it be the doctor who knows little of medicine, and who is liable to give you the poorest kind that he can buy?

Remember that the doctor who carries medicine knowledge in his head is a far better man to trust than the one who carries crazy-quilt pharmaceutical guess-work which he may regard as pharmaceutical knowledge in his satchel or in the bottles in his office.

In this connection it is worth while to read the following excerpt from a full-page article which appeared in the Sunday *North-American*, Philadelphia, written by Dr. Christopher Koch, vice-president of the state pharmaceutical examining board:

There has been a marked increase in the number of physicians who dispense their own medicines. They aver that they can keep better track of their patients, be sure of giving them pure drugs and prevent the gratuitous circulation of their prescriptions. The truth of the matter is that the dispensing doctor furnishes his own medicines in order to compel the patient to return for more. He gives a five or six days' supply, and the patient, if he wants to get more, must return and pay another fee.

As regards drug purity, it is a notorious fact that the drugs supplied to physicians are the cheapest, the most adulterated and the most worthless that are on the market. The physicians' supply houses know that the doctors are not competent or too busy to examine the drugs they buy; and they take advantage of the fact. In the mind of the average dispensing physician the only consideration is the price at which the drugs are furnished. It is perfectly well known in the trade that most of the tablets furnished physicians are sold at prices which are less than the actual cost of their ostensible ingredients, with no allowance for labor, packing and selling.

It has been further shown—and the most prominent physicians in America will bear out the statement—that tablet medication is not to be depended upon. In many cases the tablets are compressed into so hard a mass that they pass through the digestive tract without disintegrating. The best physicians now shun the tablet entirely, because no two people require identically the same treatment. Fitting the individual constitution is like fitting the body—1-60 grain may affect any two people in a totally different manner.

But there is another, and a worse, evil. The physician dispensing his own medicines confines his prescriptions to his own little stock of drugs, and so, in time, his diagnoses become limited to the ailments he chooses to be prepared to combat. If his stock consists of fifty-seven varieties of tablets, his diagnoses will be limited to those fifty-seven varieties. Instead of making his medicines fit his patients, he makes his patients fit his medicines.

And the chances for abuse of the doctor's immunity from supervision are by no means wholly neglected. I need mention only one notorious abuse, that of emmenagogs. Numbers of doctors buy emmenagog tablets, used for the purposes of averting birth, in 5000 and 10,000 lots.

We have rarely read an article so filled to overflowing with things that aren't so as this one (and this statement applies in a large degree to the N. A. R. D. leaflet also). Some wholesome truths in it, to be sure, but the bulk of it is just plain falsehood.

While, God knows, there is too much cheap and well-nigh worthless medicine sold to the doctor, we have yet to see a scintilla of evidence that the pharmacist's supplies are any better; when one stops to think of the danger of deterioration from old stocks and of substitution, as well as of the druggist's natural desire to buy cheap and sell dear, the doctor will need a deal of special pleading like that contained in this article to convince him that the retail druggist is eternally and inevitably a more reliable source of supply than the physicians' supply houses of the better class.

Everyone knows that not one druggist in five hundred does or can personally test the agents he buys. He has neither the time, facilities nor training for this work. He takes his drugs on faith, just as the doctor does. Nor does the doctor buy solely from the standpoint of cheapness. Some may, but the majority do not. The statement that they do this despicable thing is a vicious and inexcusable falsehood, a libel upon the majority of the members of a profession (80 percent of doctors dispense) who are doing the highest type of social service, for which they are remunerated but poorly. The doctor knows that the degree of his success is proportionate to his ability to benefit his patients. And yet this "doctor" Koch has the temerity to say that "in the mind of the average dispensing physician the only consideration is the price at which the drugs are furnished."

The statement that "most of the tablets" sold to physicians are offered at a price less than the cost of "ostensible" ingredients is just a plain lie. There may be a few houses offering these things at ruination prices, but federal laws against the misbranding of drugs are very strict in these days—and such houses do not last long. The doctors soon find them out—they distrust mere cheapness. Reputable physicians' supply houses will

compare very favorably as to the quality of their goods and the integrity of their business methods with the "average" drug-store.

Not every remedy is suited to the tablet form. No one denies that. But many are —and most admirably. The better class of manufacturers are making better and better agents of this class, and as for the milk-sugar granule—as a vehicle for the administration of powerful remedies, it can not be excelled. Think of the accuracy of dosage, the convenience, the palatability, the *results* to be obtained, then ask yourself if the profession or the people can be cajoled, led or driven by threats like these back to the nasty, undependable galenic messes—and to the prescription blank!

Never!

The doctor dispenses because it enables him to "deliver the goods"—give the maximum of help and give it quickly.

The question of the emmenagog we have discussed, editorially, elsewhere.

SELF-DRUGGING BY THE LAITY

While the patent-medicine evil still prevails among a certain under-enlightened class, and to a deplorable extent among those who are otherwise on a high intellectual plane, there has been a tendency in the past few years toward a dangerously inadequate schooling in the use of crude drugs among the laity.

For the most part this knowledge is passed by word of mouth from individual to individual and supplemented by information obtained from those departments in periodicals that provide medical and hygienic advice, which is more or less truth—truth misplaced, in most cases.

The almost universal understanding of Latin enables much information to be obtained from reading prescriptions, and right here is the most prolific of all sources of information. The physician usually informs the patient of the nature of the trouble, and when the patient sees the name of the remedy or drugs given he immediately assumes that the same treatment applies to any individual at any stage, suffering from the same symptoms.

The inability of the patient to diagnose his own case makes self-drugging irrational and perilous.

No drug should ever be used by any person not thoroughly familiar with its physiological and therapeutical action under all conditions.

The laity are slow to realize this fact.

The evil of self-drugging was primarily the direct offspring of prescription writing, thus, in a measure, acquainting the patient and in many cases his friends and family also, with drugs and their uses.

The many varieties of supplementary information have sprung up as the result of this whetting the appetite for more knowledge.

Few are the prescriptions that do not find their way into other hands than those for whom they were first written. In such cases the self-constituted patient usually considers himself really under the treatment of the writer of the prescription, as there is a dearth of understanding that all people cannot be treated exactly alike for any given disease, even if there be no question about the diagnosis.

They do not realize that the physician must understand the idiosyncrasies and individual characteristics of the patient under treatment. Many times the confidence felt in self-medication among the laity prevents the physician being called at an early stage of some serious condition, thereby rendering his skill less effective and often bringing discredit and dissatisfaction.

Most epidemics of contagious diseases have their origin in just such practices as this, when they could easily have been suppressed by a competent physician at the outset.

The patient's confidence in the physician is of greatest assistance both to the physician and to the patient in the accomplishment of recovery.

No single factor contributes more toward distrust than the patient learning what remedies are being used, because his understanding of medicines is necessarily inadequate and often totally misleading.

The average business man, living in this age of quick changes and conflicting interests, depends on versatility, if not bluff, to a great extent and must of necessity possess a little knowledge on a great many widely differing subjects.

This may work out all right in the business world where the stake is not human lives, but the physician cannot practise his profession by any such methods. His knowledge must embrace the minutiæ that in the business world are unnecessary. Therefore it is difficult for the untrained layman to realize that his symptoms should not be treated exactly like what, to him, are the same symptoms in another.

A business man of high standing and unusual intellectual accomplishments recently remarked to the writer that it was a great blessing to the laity that they are becoming educated in drugs and their uses so as to enable them to tell by their prescriptions if their physicians are treating them properly. If that be the fact, then why the physician at all? The original purpose of a language and terms not generally understood for the writing of prescriptions was in order that the patient should not be able to read it, but now that the terms used have become common knowledge among the people this method has served its usefulness and the progress of the age demands that it be supplanted by some other system.

It seems strange that medical science, which boasts of greater advancement than any other branch of science, should retain without a murmur such an outgrown custom, which not only does not serve its former useful purpose, but is a serious detriment to the medical profession as a whole, the physician individually, and works untold harm to the public in general.

This is the channel through which most of the drug-fiends first become acquainted with the drugs that ruin their lives and degrade the community.

In no other domain of intellectual action have there been such erroneous conclusions as have been reached by the laity regarding drugs and their uses, and the medical profession in unconsciously bringing about this condition has shot far wide of the mark of high morality.

Our pure-food and drug laws protect the public in a measure—limited to be sure—from the unscrupulous makers of patent medicines, but they unfortunately do not protect them from the disastrous results of their own folly.

Aside from its being a moral issue of no little significance, it tends not only to discredit the physician, but ultimately to degradate medical science itself by affording an opening for all sorts of charlatanry.

Once the patient's confidence in the physician is shaken by this means and he becomes the easy prey of these rashly unscientific and insufficient healing cults. The pity of the whole situation lies in the fact that so few physicians become sufficiently acquainted with the conditions outside the profession to realize the significance of this tendency. Probably no profession or calling has been more persistent or resultful in its efforts to raise the standard of civilization than the physician. Then why this outgrown custom that brings discredit to the profession and disaster to the public?

The physician who has his own and humanity's best interest at heart will think seriously and use all the influence at his command to end a system so antagonistic to his true success as a practitioner.

J. John Buzzell.

Brooklyn, N. Y.

CHOOSING A LOCATION FOR PRACTICE

The day and the hour is upon us when a horde of new-hatched, unfledged practitioners of medicine and surgery are going to escape from their four-years' penal servitude in medical college, each with his diploma, damp from the engraver, clutched under his arm, and ye editor of ye best journal on ye earth wisheth to know where to locate sundry of these fledglings so that the hard-hearted, close-fisted public will limber up on their weasel-skins enough to keep the fledglings aforesaid out of the poorhouse.

In my humble opinion, that depends upon many things, among others the young doctor

himself (or herself), and it is almost an impossibility for any one man to lay down a set of rules by which the embryo medic can find a location and wring success from his chosen field of endeavor.

Lucky indeed is the student who does not build castles in Spain all through his college days. Castles in that land are notoriously unstable and evanescent when confronted with actual life conditions. Dreams of palatial offices, forty-horse autocars, streams of patients, bundles of banknotes, bushels of coin that come to us while we are conning Gray are extremely prone to remain but dreams. The sensible young man just graduated from his alma mater will look the future squarely in the face and look forward to years of hard work before financial success perches with golden wings upon his banner.

In my humble judgment the West and the Middle West offer the best opportunities for the young graduate. Out here, in this far west region, we find less of that disposition toward conservatism than is manifest in the East and the South, the people are more liberal and have a less sturdy grip on their bank accounts. If I had an uncontrollable desire to die from inanition by degrees. [It is said that "degrees" are more common in our Eastern population. Does that explain?—Ed.] I should emigrate to some of the New England states, plant myself, and hang my shingle to the conservative Yankee breeze, and then wait for the natives to "loosen up." That experience would be certain to accomplish my desires.

Having chosen some of the western or middle-western states, preferably beyond the Rocky Mountains, and certainly not east of the Missouri, the next thing would be for the young medic to decide upon the size of the town.

Here, again, the personal element necessarily would enter largely into the equation. The man who all his life has been used to hard knocks, the man, for instance, who has always worn woolen socks, will naturally seek that community where they all wear woolen socks. And I may add, incidentally, that he will own an auto before the fellow who turns up his aristocratic proboscis at such plebian environment and chooses a large town or city where he must come in competition with older and, perhaps, better men.

The West, like all other parts of this great country of ours, is filled with good men in every walk of life, and you may be sure the medical profession is no exception to the rule. Our surgeons here rank with those of the East; our specialists are as well trained. Because the West is crude and new, with the dust of the conflict with the Titanic forces of nature still on its hands, it does not necessarily follow that its men are deficient in brains. My observation has been that it requires energy and brain to cope with the crude and undeveloped and to hew a paradise out of a wilderness; and that is just what has been done in the West in the last twenty years.

Having settled upon the West, and the small town, as his field of operation, the next thing for the beginner to do is to choose the location as to the prevailing industry. In this matter I feel myself prepared to advise intelligently. I began in a farming section, moved to a lumbering district, thence to a mining camp, comprising, in the three moves, all the leading industries of the West, for the smoke of manufacture has not yet overspread our sun.

Take up, first, the farming. The West, as everyone doubtless is aware, is a country of gigantic endeavor, where the truck farm —the little plot of ground sown to grain or planted in corn, cotton or tobacco—is unknown. Vast wheat fields stretch for miles, their yellow grain waving like the billows of some great golden sea.

This condition necessarily makes the population scattering as compared with the densely peopled sections east of the Mississippi. The physician is compelled to drive for miles, sometimes his visit extending over an entire day. In such a practice he grows to depend upon himself and his own native resources. He has no drugshop at his elbow, no colleague to assist him in his difficult cases. But no one thing develops self-reliance in the young man so quickly as to be thrown upon his own ingenuity. To illustrate:

Some years ago I was called at a long distance to visit an old lady who, my messenger said, "was sick." Neglecting to carry along anything surgical (a habit I have outgrown, by the way), I made the call, some forty miles from my base of supplies. Upon my arrival I found an old lady suffering from a valvular heart lesion and her abdomen filled with fluid. Without trocar and cannula I was helpless. To devise one out of the crude materials at hand looked an impossibility; nevertheless, a small forge, a file, the spout of a small oil-can furnished the materials for constructing a trocar and cannula with which I succeeded in drawing off the abdominal fluid—and the old lady lived several years to bless the man who had learned to depend upon himself.

One advantage of locating in a farming community, quite of moment to many of our recent graduates, is the one of running expenses. The rural communities require less ostentation at the hands of the physician than do the more urban ones. A good, comfortable office, which may be in the dwelling house, a fair driving team, and a fairly well stocked medicine-cabinet are about all the country practitioner requires.

While not strictly an element in location, it may be well to suggest to the new man that he can add much to his influence in rural communities by taking intelligent and sympathetic interest in the various organizations of the country. If he is devotionally inclined, by all means let him attend his church, but not with any great parade of doctrinal bias. Nothing kills the influence of a medical man in a small community so quickly as adherance to and flaunting of any particular belief.

People are jealuos of their religion and notoriously intolerant of the religion of others. Lodges, public gatherings for the betterment of the whole community, however, are such things as the young doctor can take prominent part in without treading upon the toes of some sensitive old bucolic who would then rather send one hundred miles for a physician than employ that man.

Be zealous for good roads. By so doing you not only increase your own comfort and convenience but you work your way into the good graces of the farming people, for nothing interests the farmer so much as a good road. I won the people of a certain country, one time, by hiring a team, shedding my ulster and shoveling straw one whole day in August while they were "strawing" the roads leading into a certain grain-shipping center. The people of that little town are talking about that yet.

Keep out of politics. Just permit me to repeat that and put a few emphasis marks under it: *Keep out of politics*. If you have strong political convictions, take them out somewhere behind the barn and bury them where they will never be disinterred. Next to religion, people worship their political party. The rampant socialist can see no good in either of the other parties, and the republican thinks the democrat a horse-thief. When I was a young man I never could understand how a man could be a republican and be an honest man.

Some day you may be asked to become coroner—that grewsome sinecure of the medical profession. Quietly but firmly hit the man that asks you to accept the nomination with an ax. Same thing with regard to being director in the public schools. If a doctor wants to lay up a store of grief for himself, just let him get to be director and get mixed up with a lot of old-maid schoolma'ams and several busy old or middle-aged women.

Of all the locations my heart likes best the mining town. There is a free and easy *camaraderie* about the workers in mines that obtains in no other vocation. The western miner gets good wages and spends them as though he were a prince. If he has but one dollar in his overalls that dollar goes for comforts and luxuries for his family. Same way when they are sick, the miner spares no means to make his family well. He will brook no negligence upon the part of his medical man. If he honors you with his confidence he expects you to do your part and do it without fail. Fees are good, although living expenses are high. Necessities of life in mining regions are far in advance of those in other communities. There is one advantage, however, namely, the

doctor does not need a team or even a saddle-horse. There is but little outside work. The entire population clusters about the one or more mines that furnish the town with its excuse for existence and the doctor is rarely called upon to make a long journey.

The embryo surgeon will find practising in a mining town the best postgraduate course. The emergency-surgery one is called upon to perform forms a considerable portion of his work, and no class of patients is more grateful for service rendered than is the miner.

Next comes the lumber country. The vast forests of the West are being converted into lumber, and this industry has given rise to a peculiar class of people. The "lumber-jack" is a rare bird. He is so entirely different from the general run of humanity that the doctor who practises among him must make him an especial study. The doctor must become familiar with the mental makeup of the "lumber-jack" and act accordingly. He cannot be interpreted by the general rules, but when once understood, no firmer and better friend exists than is this red-shirted rough woodsman. He comes into town on Saturday night and gets uproariously "full," and at such times he is likely to slap the doctor on the back and invite him in to have a drink. He is just as liable to do the same thing to the minister. It is simply the "lumber-jack's" way of expressing his appreciation. It is needless for me to add that no self-respecting physician will accept the invitation.

A twenty-mile trip through the snow to perform a surgical operation or pull some big husky woodsman through an attack of pneumonia, and your peace, calling and election are sure in that camp. Each separate and individual "lumber-jack " will rise up and call you blessed, and woe unto the unlucky mortal that says aught against you. There will be a fight on that moment. There are worse places in this world to practise medicine than in a lumber town.

This is all I have to say. Perhaps you have not benefited by my crude remarks. If not, I am sincerely sorry.

CHARLES STUART MOODY.

Sandpoint, Ida.

[In the May number of CLINICAL MEDICINE we gave a lot of excellent advice to our doctors in embryo. In the previous number we had asked our brethren of the "family" to aid in this arduous duty of telling the youngsters what they should do and what they should not do, where they should locate and why, and pass along for the general edification other kernels of advice garnered from the stubbly fields of practice. Quite a number of these articles were printed, but there have since come in a number of others, a little late for the "special" issue, but still so good, so helpful, and withal so entertaining, that we give them a place in this number. Dr. Moody's is a breezy boost for the great West. Other good talks follow this.

Incidentally, just to show that we can help *practically*, we would say that a number of excellent country locations have been brought to our attention. If you are interested, write us.—ED.]

CHEER FOR THE YOUNG BEGINNER

I have been reading CLINICAL MEDICINE for a number of years, but being young in the practice of medicine I have never had the courage to write for publication. However, your editorial in the April number, entitled "For the Boys Leaving College," stirred up an old spot in my heart and brought back to memory the day that I was presented with my sheepskin, and I don't believe I was ever happier in my life. As I gazed in the future, everything was sunshine. I saw, in my dreams, everyone looking up to me, everybody my friend, and money coming in so fast I could scarcely count it. But there was a surprise in store for me, just as I believe there is for everyone branching out in the practice of medicine.

Since beginning practice six years ago I have encountered many disappointments, and I have almost wished I were some sedate farmer, so that on cold, rainy or stormy days I might sit by the fireside and amuse myself with whatever suited my fancy, and when the sun had sunk in the west go peacefully to my bed and dream the sweet dreams of contentment until the dawning of another day.

But no poor old doctor has assurance of such exquisite pleasure—he must plod on through life the best he can until the good Lord thinks best to call him to a happier place. For all that, there is a brighter side in our life than I have pictured.

When we can relieve some suffering fellow being from torturing pain and to regain sweet health, and, maybe, earn the heartfelt blessing of some good mother, or daughter, or husband, then we feel amply repaid for many a wearisome hour and past hardship, while material remuneration will come as a matter of fact.

I would say to the young graduate, persevere, start out with a smile for everyone you meet, and with knowledge and determination you will be successful.

O. E. Amos.

Lohman, Mo.

AN ILLUSTRATION THAT TELLS ITS OWN STORY

On page 999 we reproduce a picture that, in large poster form, printed in colors, is being pasted on the billboards in many parts of Chicago. It is distributed by the Civic Federation. This picture was drawn by a well-known newspaper artist and the text is printed in several languages.

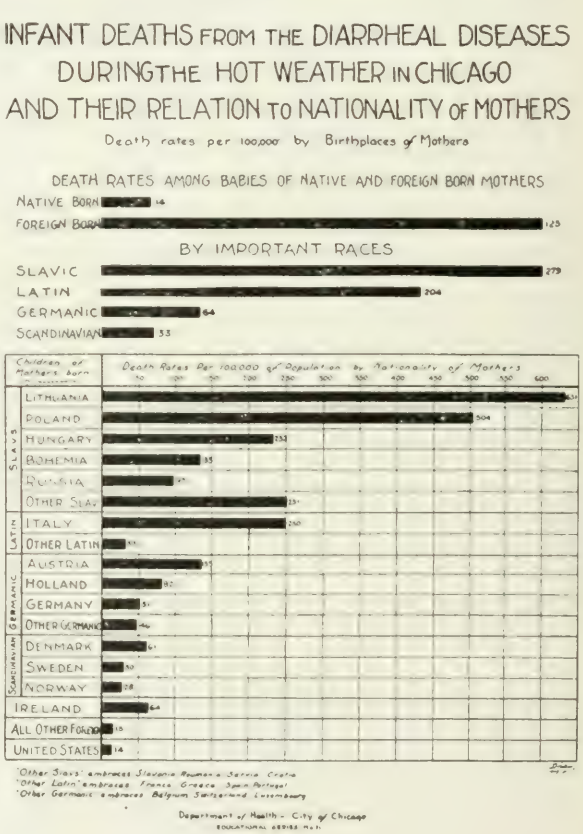
The table which we here reproduce from the reports of the Chicago Department of Health can be readily understood and imparts a warning. Environment is an important factor in the causation of disease and it is up to us physicians to help in improving this factor.

Work of this kind may well be emulated by other bodies working for the social and physical betterment of the masses.

ADVICE TO THE YOUNG DOCTOR

You ask for advice to young doctors, "your boys," about to enter upon practice. To give this seems easy, but it is not, since time, place and surroundings are deciding factors in every man's career.

You could not duplicate your efforts, however much you tried. "Glittering generalities" do not answer. Specific instructions are what these young aspirants need and want. You and I could tell them of some mistakes as well as some of our "hits,"



but not any one of the "boys" possesses your mind, neither could any of them do the things you have done. They would have to be *you* in order to do the work you are doing. Therefore there is no certain formula for success, and as I have before remarked in the pages of The Clinic, there are no two readers of your journal that have the same idea of the meaning of the term *success*. All of us strive for success, but to convince us that we have attained it is a "gray horse of another color." You have your ideal and you do your best along certain lines, and those in your rear wish they were up, and

consider you a good criterion; those beyond you, however, look down and pronounce you "no good."

Two elements are necessary to constitute a progressive man, namely, energy and good behavior. Without these there can be no real success. With these, together with a modicum of common sense, the average man will soon be successful or will find that

What to read? That's easy. CLINICAL MEDICINE, first, last and all the time. Your "boys" will take to this literature as naturally as a duck to a pond, and they will carry the alkaloids.

Then you want to tell them, as heretofore, to learn the use of a few remedies, and not to swap them for untried ones. To prescribe for conditions of the system as indicated by

DON'T KILL YOUR BABY!
PURE CLEAN MILK
WATER BOILED AND COOLED
NO COFFEE OR TEA
NO MEAT OR BREAD
MOTHER'S MILK IS BEST OF ALL
Lots of Cool, Boiled Water to Drink.
Clean Milk from Clean Bottle.
Give only these and Baby will keep well.
SUCH FOODS WILL POISON BABY
Don't Give: Meat, Bread, Potatoes, Fruit,
Sweets, Coffee, Tea, Beer, etc.,
and avoid dread summer complaint
THE CIVIC FEDERATION Co-operating with THE CHICAGO HEALTH DEPARTMENT

he was not cut out for a doctor. The man in our ranks, for the honest dollars he can earn, will soon learn that there is no fortune for the legitimate practician of medicine. If he can make a good living for himself and family he is doing remarkably well. The faker is never a genuine doctor. The two are as opposite as any two things could be.

There are a variety of men—boys, each of whom needs advice as to where to locate. If I were starting again, I should locate in the country and invest my surplus money in a *farm*; and I should hold on to that farm, even if I became a city doctor. This for safety and a shelter in old age. See?

the pulse, temperature and circulation, and not for names of disease. Mild purgatives will continue in demand as long as people eat rapidly and excessively. Let calomel and soda be the chief agent, followed by laxative salines. Select a pain-killer from the coaltar derivatives, say, acetanilid, and leave quinine for marked periodicity and other conditions.

Here are some of the things to avoid:

Fast company, for either sex, and the wine cup—the drunken doctor's day has passed, never to return. Shun politics.

If "your boys" have made up their mind to sacrifice their time, energy and brain-power for the good of their fellow men, they

have selected the right calling; if not, they have no legitimate place in our ranks.

Success to every one of them.

W. P. Howle.

Charleston, Mo.

MORE ADVICE FOR BEGINNERS

The editor has asked for some advice to the "boys" just leaving college and about to begin the practice of medicine. This strikes me as funny; for I fear that they will resent it, since it has been my experience that a large proportion of these young chaps are more ready to give advice than to receive it. However, the advice that I shall give will not hurt them, and if they see fit to resent it, it will not hurt me. So here goes.

To my mind, there are three cardinal rules for a young doctor to follow, and they will bear close study. First, to be honest with himself, second to be honest with his patients, third, to be honest with older doctors. I will try to explain how this can be done.

If the young man just starting will remember that he is better equipped in theory, has had better hospital experience, and has had special training in more subjects than we who graduated twenty-five years ago, but also that theory or special courses do not make a doctor; if he will remember that his theory is liable to be upset many times at the bedside, that very few patients present typical symptoms as laid down in the textbooks; if he will remember that theory and practice are quite different; if he will remember that his theory, if joined with an older doctor's practical experience, may be a great help to him; then he will, I think, if he remembers the above, begin right.

Now, then, if he is honest with himself, he will know that it is well-nigh impossible to tell the first time he sees a patient just what is the matter; he will not jump at a conclusion and make a rapid-fire diagnosis to impress his patient with his superior knowledge, but will make a careful differential diagnosis, and thus save himself the humiliation of having to change his diagnosis at each visit. I know there are some patients who think a doctor ought to know everything, and at once, but the doctor can very easily discourage this idea, and to his very great credit.

If he is honest with his patient, it will surprise him how quickly he will get that patient's confidence and how quickly the patient will grasp the fact that the doctor is working hard to make a correct diagnosis rather than a quick one.

As to his relations with older doctors, I think it is safe to say that, with few exceptions, they will be glad to give him the benefit of their advice and clinical experience and take in return his newer methods of examination and procedure.

I believe the reason why so much feeling exists between young and old doctors is conceit on the one hand and jealousy on the other. This can and should be avoided; that it is not, is the shame of our profession today.

I think if the three cardinal rules I have spoken of are carried out, it makes no difference where such a man locates, he is bound to succeed when the people and profession learn that he is honest with himself and with them.

C. F. Wicker.

Saranac Lake, N. Y.

WHERE SHALL HE LOCATE?

While reading The American Journal of Clinical Medicine for April, I saw an article for the young men just leaving college. I will take for my subject-matter the first proposition, *Where shall he locate?*

At this age of the "survival of the fittest," and since the medical profession is becoming crowded (especially in large cities), I would suggest that the young man with his unexsiccated (green) sheepskin locate in a small town or a country settlement, for the following reasons:

1. It makes him more independent and self-reliant.

2. The glitter and whirl of society does not call him so often.

3. He has more time to read, owing to the lack of society.

4. He always wants to accomplish great undertakings alone so he can exploit them to his friends in the "cities."

5. He always tries to serve his patients with the greatest care, for there's not the hurry and scurry that we find in the cities.

6. He is a more conscientious practitioner.

7. He lives longer.

I know that there will be dissenters, but these conclusions are based upon personal experience. I know of one young doctor who had never performed an operation of any kind, and who was called to see a patient suffering from sepsis from portions of retained placenta. This young doctor diagnosed his case, told an onlooker how to drop the chloroform, then curetted, finishing his work in about an hour. The patient recovered without any grave symptoms, and is well today. If this young doctor had been in the city, he would have had two or three other doctors to assist him, which would have meant very little experience to him and a smaller fee.

I think THE AMERICAN JOURNAL OF CLINICAL MEDICINE is the most liberal among our medical journals, and it comes nearer in bringing out and making us to understand each other's ideas and thoughts than any other published.

A. L. SANDERS.

Purcell, Okla.

THE YOUNG DOCTOR'S TWO-HUNDRED-DOLLAR EQUIPMENT

Two hundred dollars to equip a beginner's office is rather a small sum, but by close buying I think I could fit myself out in a very creditable manner. And this is how I should spend the money:

Furnishing the waiting room as follows: Rug, $12.00; small table, $8.00; chairs to the value of $10.00; pictures, umbrella rack, magazines, unforeseen incidentals, $5.00. Total, $35.00.

Office furniture and furnishings as follows: Desk, $20.00; desk chair, $5.00; book-case, $10.00; chairs (two), $5.00; dressing table, $6.00; cabinet for medicines and instruments, $15.00. (A better cabinet might advantageously be chosen, applying the $15.00 as the first installment, the rest to be paid in one year.) Operating chair or chair-table, $25.00. (Or use the $25.00 as first payment on a better one. The cabinet and the operating chair are the only articles for which I should go in debt.) Sign, $2.00; clothes rack and cuspidor, $2.00; stationery, $6.00; 500 cards, 500 note-heads, 500 bill-heads, 500 envelopes, card-index system or ledger, etc., $1.50. (I should be economical on the last item for a year or two, as I should not expect to use my card-index very much.) Total, $95.00.

Professional carrying cases and instruments as follows: Medicine-case, $5.00; pocket-case, $1.00; obstetrical-surgical bag, $5.00; instruments, $11.00. Total, $22.00.

This looks very small, but most students buy such instruments as obstetric forceps, ophthalmoscope, nose and throat set, head-mirror, urinary test outfits (partial or complete), hypodermic outfit, etc., while attending college.

I should invest in a pocket-case, $5.00. Vaginal speculum, rectal speculum, dressing forceps, ear-syringe, and six-tip universal syringe. Porcelain ware, $1.00.

Books, not anything. Every student should spend $10.00 to $25.00 a year during the course for books. If he does this he will have a very useful library to start with and will need no new books for a year or two. Magazines, $3.00 for the first year. Later one weekly and two or three monthlies. I take two weeklies and ten monthlies, but half this amount is plenty.

Dressings: gauze, bandages, adhesive tape, cotton, etc., to the amount of $7.50. Supplies and sundries, $10.00. This includes hydrogen peroxide, tincture of arnica, lysol, antiseptic tablets, ether, chloroform, iodine solutions, dusting powders, boxes, bottles, corks, labels, etc.

Medicines, $20.00. By buying in 100- or 500-lots this $20.00 will cover a large line.

As there is much good in all schools of medicine as well as much bad in all of them, the young doctor does well if he looks into all systems. There are 10,000 eclectics and 15,000 homeopaths, and I suppose as many alkaloidists. These men are not all "damphools," even if they are so considered

by the exponents of socalled regular medicine.

Study hard and pick the best from all schools, and get a stock of drugs accordingly. Dispense your own medicines. Buy them in small quantities and keep them moving. Write to The Abbott Alkaloidal Company, Lloyd Brothers, to Boericke and Tafel, to Parke Davis & Co., and The H. K. Mulford Company, for literature, and then spend the $20.00 for drugs wisely.

As you pick up practice and can afford more apparatus, I should advise purchasing in the following order: (1) A nebulizing tank and outfit. (2) Ear-masseur. (3) Sterilizing outfit. (4) Arc-light. (5) X-ray coil. (6) Wall-cabinet. (7) Microscope, and such other appliances as need and fancy dictate.

G. B. Baier, Jr.

Philadelphia, Pa.

THE TRI-STATE

Don't forget the big meeting of the Tri-State Medical Society at the Planter's Hotel, St. Louis, Mo., September 13 and 14. The preliminary program is ready and it is "rich." Dr. Jeppson of Sioux City, Iowa, is President. Dr. Emory Lanphear of St. Louis, the Treasurer.

AN ECLECTIC FINDS CLINICAL MEDICINE GOOD

The May number of Clinical Medicine is certainly a daisy. I am not and never have been an "alkaloidist," but the person who says he does not practise alkalometry to a greater or less extent either lies or does not practise at all, because there are some alkaloids which we could not get along without and whose abandonment would throw the practice of any school into oblivion.

I am an eclectic, core and fiber, and in my endeavor to be true to my creed I select that which is good from any source whatever. Belonging to the state and national eclectic associations, also to the Specific Medication Society, I am, of course, supposed to be interested in medical progress generally. We members of all schools cannot do without Dr. Abbott and The American Journal of Clinical Medicine. Alkaloidal literature is progressive. It is edifying and it is scholarly. I would not part with my "Alkaloidal Practice," "Diseases of Children," by Candler, also Radue's "Manual of Treatment of Diseases of Children," Shaller's "Guide" and "Alkaloidal Therapeutics" by Abbott and Waugh, as well as the others I have.

I repeat, the May number of Clinical Medicine is a daisy. I fully recognize the face of the man with the hat on in those college groups as Dr. W. C. Abbott of alkaloidal headquarters.

In closing I pledge myself to write for Clinical Medicine an article in which I shall put my greatest effort to interest all of the readers of this valuable journal in the near future, but I cannot tell it now. Be patient.

A. J. Mann.

Alvaton, Ga.

[The article to which Dr. Mann refers appeared in our July number and tells of the exposure of a diploma-selling quack. If you haven't read it you should do so.—Ed.]

A BUNCH OF HINTS

If you see anything new or worth while in these tips, please cut them out and use them.

I couldn't remove the stopper from a bottle of dermal caustic, after once opening it, until I roughened the stopper rim on a whetstone and then caught it in a bench vise. This gave a hold so that I easily twisted it out by using the bottle as a lever.

Ingrowing toenails.—First, don't get them! Cut out the nails in concave form, taking as little as possible from the edges. Nature means these nails to be convex, and will fill in the depressed center before supplying any more to the edges. When, however, they have been neglected and grow in, pack a little absorbent cotton under the nail, sufficient to lift the nail from paining. In a couple of days add a little more cotton, as the first will have contracted. Continue this until the nail breaks in the center trans-

versely. Soon it will fall off and a new nail, perfect in shape, will grow out. An absolutely painless and safe cure.

Sweating feet:—Warm bath, dry thoroughly then rub well with some bismuth subnitrate—half a teaspoonful will be enough for both feet. Two or three applications and you can test those socks guaranteed to wear for six months.

Thymol iodide, one dram to the ounce of flexible collodion makes a fine dressing for small wounds, the collodion protecting and the aristol healing. It is like putting on an artificial scab.

I always get rid of my soft corns by putting on a corn shield and rubbing some salicylic acid in the hole of the shield. After this has been repeated for two or three days they can be picked off.

Whatever else I use for sore throats and coughs (including pneumonia) turpentine and sweet oil, equal parts, must be rubbed on. Terpine hydrate and calcium chloride go in the cough mixture, 5 grains each.

I haven't noticed the association of rheumatism and tonsilitis, but have practically always found tonsillitis and malaria chumming together. Also a history of malaria preceding intercostal neuralgia. And plenty of malaria in winter when the mosquitoes are quite scarce.

It is better not to know so much than to know a whole lot that is not so, so I won't sign this for fear of criticism.

J. E. C.

——, N. Y.

EPISTAXIS AND ITS TREATMENT

Ordinary nosebleed is not a difficult condition to relieve, yet it is often treated quite inefficiently by the average physician, even in hospital service. I have seen packing simply forced into the alæ nasi, so as to only back the flow into the throat, thus making the condition even more unpleasant.

Why not, it may be asked, also plug the posterior nares in the classical manner? I advise against this in most cases because it is usually unnecessary, and because it is liable to cause otitis media, with its complications.

In a considerable experience, I have found a postnasal plug required in only three instances. When this is needed, it is not the complicated affair the textbooks would imply. A Bellocq canula is not necessary. Simply pass a soft catheter with a flexible wire, if needed, into the nose till it can be seen in the oral pharanx, seize with a pair of suitable forceps and draw the end forward. Now tie a strong thread around the eye of the catheter, draw the catheter back through nose. Attach a cord heavy enough to hold the plug and proceed as advised in the books. The size of the plug must be determined by trial or experience.

Dr. G. G. Kemper, Arbala, Texas, on his round of visits. The doctor is just 65 years young.

However, as I have intimated, a proper anterior packing will do the work in nine cases in ten. The bleeding point is usually about an inch back on the septum, and easily reached from the front. For anterior packing take an inch-wide gauze bandage, double the end several times to make a fairly thick pad and saturate with peroxide of hydrogen. Then through a speculum force the pad at least two inches into the nostril, keeping the point of the probe toward the floor and the septum. The best probe is the ordinary nasal applicator, wound with a little cotton at the end to prevent damage. Enter the folded end first to prevent damage. After the folded end is in place, the rest of the bandage can be packed gradually in and the nostril

securely packed. The plug can be left in position for a day or two and then carefully withdrawn.

H. O. Carrington.

New York City.

TOXIC ACTION OF ASPIRIN

I have used a great deal of aspirin in my practice and have never seen any bad effects from it, although I have used it in 5-grain doses and repeated them often.

I wish to relate an experience with a 5-grain tablet (of a well known house) on myself. About one-half hour after taking the

Dr. A. S. J. Collins' residence, Monticello, Ark.

dose the pupils became injected, the lower part of the lid became very much inflamed, and there was a terrible burning sensation. Photophobia was marked. A local application of solution of boric acid and camphor water gave relief but it was several hours before the trouble disappeared.

Will some of our brother doctors enlighten me on this subject and relate if they have had similar experience?

A. D. Heinemann.

Memphis, Tenn.

A NEW AND "SURE" REMEDY FOR BAD COLDS

I read of Dr. T. W. Williams' "New Remedy for Bad Colds" in the March number of Clinical Medicine, consisting of tincture of myrrh swabbed on the anterior nares, which in addition to forming an improvised coat on the membrane no doubt acts as an antiseptic or germicide also, though the Doctor did not mention this valuable quality of the myrrh.

The remedy I have used for forty years and more effectually, never failing if it is used promptly and persistently, is pure spirit of camphor, carbolated and mentholated. I add to a given quantity of the camphor spirit a few drops of carbolic acid and a little menthol also, and inhale this by putting a few drops on the corner of a linen handkerchief or in the palm of the hand. I do this just as soon as the sneezing begins and repeat every hour till the sneezing and nasal discharges cease, which will occur very soon if treatment is commenced promptly on the first paroxysm. If this has not been done and the germs bred in the interior nares have been drawn down into the bronchial tubes and febrile symptoms appear, I give broken doses of epsom salt dissolved in capsicated water (a few drops of the tincture of capsicum or a small pod of red pepper put in the water). The capsicum acts well on the inflamed mucous membrane, the magnesium sulphate specifically on the water of the blood, carrying the germ-infected serum off by the bowels.

I always give aconitine if febrile symptoms appear, or in anticipation is still better. I allow plenty of cold water for the patient to drink and a warm foot-bath at night. The room should always be well ventilated.

Pneumonia often begins with these bad colds, and I know from fifty years experience in the South that both can be aborted by the treatment I have outlined. I was associated with Dr. James W. Oliver (first cousin of mine) who was United States Army Surgeon in the late fifties when Billy Bowley was captured in the Everglades. In the winter of 1861 pneumonia was epidemic from the St. Marks River to the Sopchoppy, some sixty miles, and Dr. Oliver slept in his saddle while visiting pneumonia patients. As the posts were blockaded and drugs scarce he was left largely to the use of herbs

and epsom salt, and I have heard him say often that he would guarantee to abort forty-nine out of fifty cases of pneumonia (uncomplicated) with nothing more than epsom salt, capsicum, aconite and a buttermilk diet, providing he could begin with the first stage of the disease.

Don't forget that the epsom salt must be dissolved with capsicum and given in broken doses every hour or two till effect. I have found that small doses of the epsom salt given at repeated intervals of one or two hours, if dissolved as above, will generally give quicker and more satisfactory results than calomel. In fact I have concluded if I had to be left with only one remedy to "keep clean," and therefore healthy I would take pure sulphate of magnesium combined and dissolved as above, and feel that I had the next thing to a catholicon.

F. B. Moodie.

Lake City, Fla.

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[This is interesting, and though we do not believe in "sure" cures as a rule, we are of the opinion that a large percentage of acute ailments can be arrested in their incipiency by energetic and intelligent treatment. Dr. Moodie has got down to one of the fundamental essentials: the clean out. Magnesium sulphate is one of the best remedies for that purpose, though it is really pleasanter to take it in the effervescent form, adding the capsicum, aconitine, camphor or other indicated remedies, as they may be needed, in the more palatable form of the milk-sugar granule.—Ed.]

PHYSICIAN'S PSALM ONE

Blessed is the doctor that walketh not in the counsel of the "irregulars," nor standeth in the way of his patients, nor sitteth in the seat of the nihilist in medicine.

But his delight is in the practice of "the principles of progressive medicine," and in this doth he study and dispense day and night.

And he shall be like a tree planted by the rivers of water, that bringeth forth his fruit in his season; his income also shall not wither; and whatsoever he doeth shall prosper.

The quack is not so, but is like the charlatan whom the people drive out. Therefore the quack shall not stand in the medical societies, nor unlicensed men in the congregation of physicians.

For the people know the way of the "regular practitioner," but the way of all deceivers shall perish.

F. A. Pitkin.

Palmyra, N. Y.

SHOULD THE DOCTOR BECOME A "FAN?"

On several occasions, I have been on the point of asking through the columns of your highly prized journal a couple of questions, on which I hope you will express an opinion, without fear or favor, and possibly elicit some comment from your many faithful readers.

In the first place, I am of an active and muscular make up, having in my younger days devoted a great deal of my time to outdoor sports in the summer days, principally baseball. In fact I am a rabid "fan." No crowd of small boys playing the National Game is ever too amateurish or raw; I must stop for a few minutes at least to watch a play, so by this you can judge of my interest in the game.

Being located in a small town where the good material is scarce as frog's hair, I have upon several occasions been asked to fill a position and become a member of the team, because I have played a few times, having demonstrated some ability to bat and field a ball. In fact nothing pleases me more than standing in the red-hot sun, always on my toes, ready to field a hot one to first and give encouragement to the man on the hurling line.

Now the point is this: Am I lowering myself professionally in the respect of my medical friends, neighbors and patients? I am fully aware of the professional dignity I should at all times assume. I have never played for a consideration and as far as I can see it, my neighbors and friends enjoy watching the struggle for supremacy. If I suggest

that some one else fill my place, or refuse to turn out, right then I am besieged by a number of players and friends, with all kinds of arguments and protests.

To be honest with all, I have increased my practice by coming before the public eye. Many have informed me that they first learned of my name and profession when they saw me on the field, even in out-of-town games, where I have had to stand for a lot of well meaning, but uncomplimentary "roasts," such as are usually given a visiting team.

I am also a lover of music. Our town boasts of a band. Nothing in my opinion is more attractive for a town than a good band. The Saturday evening concert draws the farmer and his family, who usually spends his money as his household demands, and at the same time he, his wife and children have enjoyed an evening of music—although there may have been a number of discords.

Because I have some musical ability, playing a clarinet, I have been induced to join the band. Some of these members are merchants and business men, all of us playing because we love music.

In neither case, baseball or band playing, have I allowed practice to suffer or be neglected.

I want your editorial opinion; also the opinion of my professional brothers, as to my wisdom in mixing in the baseball and music. Don't consider my feelings, as I am broad-shouldered and can stand any ordinary sort of a load.

Please bear in mind before passing judgment, that I practise in a small Montana town, with a very large territory surrounding, that I am known by fully two-thirds of the settlers, and that they certainly show enthusiasm in our team and band. We have a certain freedom, peculiar to westerners, and the spirit of get-togetherness, which does not exist in the larger cities, and as far as I know does not exist in the small towns of the east.

Before getting this all out of my system I wish to say that Montana is the state to practise in. The people are right, prices are good and there are plenty of fine towns with locations for "live wires." If there are some who wish to change, I can put them on to some fine openings. In addressing me please enclose stamped envelope.

J. H. DRAKE.

Mondak, Mont.

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[The doctor's letter falls into sympathetic hands. There are several members of the "cabinet" who are rabid "fans" and the writer is probably the worst in the bunch. While he is no longer young enough or muscular enough to indulge in the game personally he likes to see it played. He follows with intense interest the great National League struggle for supremacy, and when he can steal over to the West Side to see the "Cubs" put one over on the "Giants" he goes. Baseball is a clean sport, and no man, young or old, need feel ashamed of an interest in it. But, of course, there is an intensity of interest that is dangerous. When a man thinks more of his play than he does of the great business of his life, then it is time to call a halt. The thing for Dr. Drake to decide is whether baseball or band practice is absorbing time which he owes to professional study or to his patients. If it does not—if it is the outlet for his bubbling vitality, the exercise, the physical and mental stimulus, that he needs to get the maximum of joy out of life, then *I* would say, go ahead—and I would like to see (and hear) you play.

The sanitarium of Dr. J. Beechler, Soquel, Calif.

Out in the growing, glowing West, where life is full of its enthusiasms and the men are all young in spirit, and many of them young in years, there will be very few who will condemn a young doctor for being "one of the boys." But in the dignified East, it may be different. *Quien sabe?*—ED.]

SOME VALUABLE HINTS

Rhus tox. ointment is invaluable for sprains. Rub the sprained joint thoroughly with it.

For caked breasts use phytolacca ointment.

For chapped hands use ether, glycerin, rose water, equal parts.

For stiff joints use tincture of ginseng in 20-drop doses.

For piles and inflamed rectum give tincture of negundium americanum, [what is it?—Ed.] in 10-drop doses.

A white-coated tongue shows that waste is not being eliminated fast enough. Even the tongue, which is not an excretory organ, is helping to get rid of the toxins. All toxins contain carbon. Give magnesium sulphate. The magnesium is greedy for carbon and will take it from the toxins. [How, Doctor?]

In treating catarrh you will accomplish nothing while the tongue is coated white. Give epsom salt, 5 grains in capsules, on an empty stomach, three times daily until every bit of the whiteness has left the tongue, then rest until it appears again. If you continue the epsom salt after all the whiteness has left, the patient will complain of great chilliness.

Diphtheria antitoxin is composed of serum from a horse that has been inoculated with diphtheria. Also, to prevent its spoiling, a small amount of antiseptic is added; but if this same antiseptic is dissolved in water and injected as the antitoxin would be it has a splendid effect for good. The antiseptic is the active principle. This antitoxin craze is a big graft on suffering humanity. Learn to use carbolic acid hypodermically. Add nuclein and you have something good. F. POLLARD.

Garberville, Calif.

[Can't agree with you, Doctor, about the antitoxin. You're on dangerous ground there! Your hints are appreciated. Your magnesium chemistry seems obscure.—ED.]

IS CORN SYRUP A CAUSE OF PELLAGRA?

The personal history of the case of B. F. A., grocer, aged 60, presenting the second and perhaps the third seasonal recurrence of dermal manifestation, all progressing unfavorably, brought out insistent denial that any corn-meal product had formed any part of his dietary, and the statement that he lived "mostly on 'light-bread' and syrup."

Home of Dr. S. R. Klein, New York City

Further investigation through members of his family has confirmed his statement, his consumption of bread and syrup being so excessive as to cause protest as long as two years ago, on the general idea that "so much bread and syrup wasn't good for him."

Inquiry as to the kind of syrup shows it to have been "corn syrup," with perhaps a flavoring trace of the famed Louisiana cane syrup. I have seen nowhere any suggestion that this liquid corn product, which has caused the "pure feudists" quite a lot of trouble, may be included among the solid corn products held to be associated with the cause of this serious problem which presses for solution.

However, such suggestion may explain the development of pellagra in individual cases, and more probably in institutional outbreaks, where the absence in the dietary of a solid corn product, or its use in minimum amount, has caused confusion and even doubt as to the responsibility of maize products in the etiology of the disease. The paper of Dr. H. J. Nichols on its etiology, at the Pellagra Conference, mentions that spore-bearing bacteria have been repeatedly found in corn meal, which survive steaming for two hours, which is not the case with molds that have been suspected.

This would preclude the claim that the preparation of corn syrup would necessarily destroy such an organism, possibly the cause of the disease. C. P. MUNDAY.

Shreveport, La.

ALIMENTARY SACCHAROSURIA IN INFANTS WITH INTESTINAL DISORDERS

Reuss (*Wiener Klinische Wochenschrift*, No. 4, 1910, through *Medical Review of Reviews*, February, 1910, page 84). Sugar is frequently found in the urine of infants suffering from severe disorders of nutrition, especially in the condition described by Finkelstein under the name of alimentary intoxication. The form of sugar is that found in milk, namely, lactose or milk sugar. In the more severe and acute cases galactose is found either alone or with lactose. Both these sugars are derived from the milk sugar taken in the food and have nothing in common with the glycosuria found in diabetes mellitus.

Lactosuria is present when the lactose passes unchanged through the intestinal mucous membrane on account, perhaps, of some abnormal condition of the mucosa. Galactosuria shows some disturbance in metabolism and is of more serious import.

The presence of sugar is of diagnostic importance in intestinal disorders of infancy.

The author made a series of experiments on twenty infants with intestinal disorders to determine whether cane sugar would pass through the intestinal wall similarly to milk sugar. In every case he was able to detect cane sugar in the urine after it had been added to the food. From his experiments he concludes that an alimentary saccharosuria is present in sick infants similar to the alimentary lactosuria and that it has the same clinical significance.

CATARRHAL DEAFNESS HELPED BY THIOSINAMIN

Thinking perhaps it would be of interest to some of your readers to know more about the results from treatment by thiosinamin injections I will report some progress with a case of catarrhal deafness.

Miss M., age 23, deaf for the past six years. From all that I am able to learn the trouble is catarrhal. She still had an active catarrh of nose and throat when I began treatment, but otherwise was quite healthy. I have given eight injections of thiosinamin (2 grains each) at the rate of three per week. The catarrh has all disappeared and the hearing has sufficiently returned so that she can converse over the telephone without any difficulty and can hear common conversation three or four inches from her ear. She now hears without difficulty the steam whistles on the boats that pass within one hundred yards of where she works and the exhaust from the gasolin launches. She also hears music and the sound of a watch ticking when it is held against the ear. The right ear has made the most noticeable improvement, but there is a marked improvement in the left one also.

Before treatment this young woman could hear only the loudest conversation when the mouth was held against her right ear. With the left ear she could hear nothing at all. Her

general health is the same as before, appetite good, sleeps well, and works hard in a laundry every day. Will report results later.

GEO. B. CAMPBELL.

Bremerton, Wash.

[We shall be glad to learn of the final outcome in this case. The preliminary report certainly gives promise.—ED.]

AMERICAN MEDICAL COLLEGE

The American Medical College of St. Louis has followed the lead of Bennett and joined the regular school. Dr. James Moores Ball is the Dean, J. J. Link, Treasurer, W. G. Burdick, Secretary.

As *The West Virginia Medical Journal* says editorially, "there is no need of eclecticism, homeopathy, or any other sect of medicine, although we have undoubtedly learned something from each."

THE PROBLEM OF LIVING

Dr. Curran Pope, in an address delivered before a mixed audience, at Evansville, Ind., said that when we consider that the diseases that are shortening the life of every human being of this country actually cost (and the estimate is really low) something like $1,500,000,000 per annum, or the income on $30,000,000,000 invested at 5 per cent, you cannot help but realize that we are here confronted with such a stupendous financial problem that you may possibly be inclined to ask the question, "Do dollars count for more than deaths?" If they do, the expenditure involved is indeed enormous. It is from the business standpoint, then, that our business men must realize the great value of the more recent discoveries of science in this field, some of the most of which relate to the three great scourges, malaria, yellow-fever and uncinariasis.

Malaria, with its three or four million victims annually, yellow-fever, with its death-dealing power, have both been proven to be due to a germ that is conveyed to the sufferer by means of the mosquito. The simple solution of this grave problem is to be found in shutting out the mosquito by screens and destroying, by drainage, their breeding places. Then the hookworm, the socalled "lazy-bug" of the South, a parasite that is found in the form of long filaments in the blood and which, as Stiles has shown, gains entrance to the body through the bare feet in contact with polluted soil. The solution of the latter problem embraces the destruction of the worm, and, with it the disease, by the use of less than a dollar's

DR. CURRAN POPE

worth of medicine per person, and prevention of infection by wearing shoes. These are some of the problems that have been encountered and overcome, resulting in prolonging the average of life and thus solving a part of the problem of living.

There are four principal ways in which life may be shortened, namely, impure food, impure water, impure air, and accidents. These cover the majority of those influences

that tend to reduce the normal life-tenure of the average human being.

How, then, may life be prolonged, how may the "problem of living" be solved? These questions may be roughly considered under two headings: the public and the personal aspect.

Today every man is his brother's keeper, and public health and public protection is something that should be demanded of every government, state, county and city. To be amply protected by the public-health bureau through proper sanitary inspection, backed up by police authority, is, in its terminal analysis and applicability, of more importance to you and me than any army and navy. It comes nearest home. When you consider that we could have widespread national medical protection for what it costs to build one Dreadnought of the Delaware class, you can realize that this rich country of ours should give to its people a medical officer in the Cabinet and a National Bureau of Health that would be second to none in the world. My friend, Dr. McCormack of my State, has tersely put it in saying that the health department of a city is really of more importance than a police or fire department. Business men, professional men, mothers, wives, sons and daughters are delighted when no war-cloud hovers over this nation to mar its peace, but disease and pestilence is a menace, an ever-present enemy and destroyer of usefulness, so treacherous an enemy that it may cost even life itself.

But public protection and public inspection from disease is not alone sufficient; the general element is perhaps the most important. It is a purely reconstructive subject and has to deal with the individual. Man should keep himself in excellent muscular condition; he should exercise in some way in some active game or other physical exertion. Muscularity and body-tone is the real bulwark on which we must build all true physical, mental, moral and spiritual culture.

Briefly speaking, we may sum up the personal needs as follows: The free drinking of pure water; frequent use of water upon the external surface of the body—baths, preferably warm followed by cold water; pure food, well cooked, correctly served, properly eaten; clothing adapted to the time of the year and climate, and age; proper ventilation of homes, offices and factories; the avoidance of the follies of fashion; total abstinence from liquor, tobacco, and dissipation in general.

Where these precepts are followed, we may feel certain that, everything else being equal, the "problem of living" a longer, better and purer life, more nearly approaching our best ideals, will be happily solved.

FIBROID SCLEROSIS OF THE CORPORA CAVERNOSA

This case appeared in a man 52 years old. It is supposed to be the result of a gouty or diabetic condition; but neither of these seem to be present. He first noted a small bean-like lump on the dorsum of the penis about one-third back from the glans penis. Then there followed a thickening in the sheath of the corpora cavernosa. Later, as the disease progressed, there formed two plates of firm elastic tissue on the superficial portion of the corpora, these being about the size of a silver dime or, as described by Taylor, "like a saddle."

The patient complains of pain when he has an erection, the penis bending upward and backward, almost to a right angle, the anterior portion assuming a semierectile condition. Intercourse is perverted and unsatisfactory, owing to the curved and flaccid condition present. Any attempt to straighten the organ produces pain and it is feared might rupture the tissues.

There seems to be no inflammatory condition about the disease—just a chronic fibroid hardening. We might have given a more minute description of this state of the organ while in erection, but we refer you to Taylor's "Sexual Disorders of the Male and Female," where you will find the disease very accurately described.

The etiology and pathology are indefinite, the diagnosis easy and the prognosis not

flattering. No treatment has been advanced that is at all satisfactory.

Last October I noted an article in which iodum (Miller) was highly recommended for this disease, so we began the use of it as follows: The iodum was well rubbed in along the dorsum of the penis every night, covered with cotton and a bandage applied to prevent blistering.

Twice a week the iodum was applied to the urethra through an endoscope on a probe wrapped with cotton. At the present time, the ninth month of treatment, there is slight improvement. There is not quite so much pain on erection and possibly the dorsal curve is not so great.

Recently I have been reading of results in cicatricial tissue from the use of thiosinamin or fibrolysin. Now, if this remedy will remove scar-tissue, would it not be the ideal remedy in this disease? This of course is a very rare ailment and a physician is in luck should he see a case once in a lifetime.

I record this case hoping that it will be of interest to the readers of CLINICAL MEDICINE, and hoping that we may hear more in regard to the treatment, as the parties to be treated for this disease are very much interested. Let us have your ideas on the treatment of this disease. Also more light on fibrolysin in fibroid sclerosis.

J. M. ADKINS.

Kansas City, Mo.

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[A case of this kind was reported in CLINICAL MEDICINE several years ago, as our older subscribers will remember. Personally we can add little to the suggestions then made. Can any of our readers help?—ED.]

KNOCKING "THE PERSIMMONS" OUT OF IVY POISON

Among the many good things in THE AMERICAN JOURNAL OF CLINICAL MEDICINE I occasionally see some fellow add to treatment of "ivy poisoning." I want to put the "finis" to all that has been said. When you want a clean, cooling, soothing and curing remedy, apply spirit of nitrous ether every two to three hours. In from twenty-four to thirty-six hours you will have "knocked the persimmons" out of the eruption, and your patient will "rise up and call thee blessed."

IRA LEE TURMAN.

Cynthiana, Ind.

A SUBSTITUTE FOR CARBOLIC ACID

I have read with much interest Dr. Ralph St. John Perry's article in the August CLINIC on "The Treatment of the Injured Hand," in which he wisely gives a warning relative to the use of carbolic acid, "Don't use carbolic acid," to which I say amen.

I have witnessed the dangerous effect of a too free use of this acid in the treatment of gangrene of the extremities. And right here let me state that for several years past I have found a much more agreeable and efficient substitute for that article in the cinnamon water of the U. S. Pharmacopeia. I have used it with highly satisfactory results in cancerous ulcerations of the breast and other locations. I have used it with an atomizer to deodorize and disinfect the very disagreeable odor of the air in rooms of cancerous and gangrenous patients. As a deodorizing and detergent wash it will surprise you.

GEORGE D. STANTON.

Stonington, Conn.

WE "FESS UP"

Last month we accredited to Charles Eugene Banks the following:

"There be six things which the Lord hateth,
Yea, seven which are an abomination unto him:
Haughty eyes,
A lying tongue,
And hands that shed innocent blood;
A heart that deviseth wicked immaginations,
Feet that be swift in running to mischief,
A false witness that uttereth lies;
And he that soweth discord among brethren."

A Minnesota reader of THE CLINIC, who is more familiar with the Sacred Book than we seem to be, brings us up very short with the statement that we are crediting to Banks a great prose poem which was written by Solomon. He refers us to Proverbs 6:16 to 19. Of course our correspondent is right, and we are compelled to confess that our seeming ignorance of the Good Book

has led us into a humiliating error. However, we are going to shovel some of the responsibility off onto Banks, for we lifted this beautiful quotation from his *Peace Pipe*, and *he* didn't give Solomon credit for it.

The strangest fact is, however, that of all the thirty thousand odd readers of CLINICAL MEDICINE our Minnesota friend was the only one to detect the error, at least the only one to write us about it. If we had printed a new cure for the itch and made a mistake in the formula we should have been snowed under with criticisms, corrections and suggestions.

APPENDICITIS AND A CLEAN "CANAL"

On page 789 of the July number of CLINICAL MEDICINE you ask, "Do we know that appendicitis was any less common twenty or thirty years ago?"

Answer: No, we do not know, but if my premise is correct then my conclusion is also correct. I said, as a premise that, appendicitis is oftener an accompaniment of colitis than a cause. If this is true now it was also true then, and the emptying of the colon was to shut off, jugulate or abort the appendicitis.

The heavy purging was to unload the colon, but this must be done before peritonitis or inflammation set in—not afterward. Do you see? I hope no one will try to cure peritonitis by heroic purgation, and I trust many will have the pleasure of preventing it by promptly emptying the colon.

I believe many serious illnesses are avoided by the use of emetics and purgatives. I think I saved a life this week by the use of a heroic dose of apomorphine. The patient, a strong African, had shoveled coal several hours in the hot sun, drinking ice water at intervals. He went home hungry and ate a large quantity of cabbage, beans, potatoes and onions which he failed to digest. He was in agony with the pain and cramping. I gave him 1-5 grain of apomorphine, which put most of his supper into a slop-bucket. I followed the emetic with calomel, rhubarb and aloes, one grain each, "to effect." He is at work instead of being in the grave. I unloaded his stomach and bowels.

W. P. HOWLE.

Charleston, Mo.

[Another illustration of the eternal verity of the "clean out" idea. Of course Dr. Howle is right about many diseases (even appendicitis) being averted by the use of purgatives and emetics. The latter, though not needed as often as the former, are often needed very bad indeed. Apomorphine is a life-saving remedy and should be in every physician's emergency-case.

Not only does "cleaning out" prevent disease, it is also often the most important method of curing it—even when it attacks seemingly remote parts of the body.—ED.]

THE "TEMPLAR TIPPLE"

Chicago has just been entertaining the Knights Templar. There were thousands here, among them many physicians. Some good advice was given by the Department of Health, in its *Bulletin*. Here is one item, that is good enough to pass along to CLINIC readers:

Have you tried the "Templar Tipple?" What is it? It is made as follows:

Cream, 2 ounces
Powdered sugar, 1 heaping teaspoonful
Buttermilk, 4 ounces
Cracked ice, a little

Put in a tall glass, mix well, then fill the glass with charged water.

RELAPSING TYPHOID FEVER—AN ANSWER TO DR. LEVERETT

In reading Dr. Leverett's article (page 904, August CLINICAL MEDICINE) I noticed that he gave the intestinal antiseptics in tablet form, which no doubt explains the relapse, the remedy not being absorbed in sufficient quantities to disinfect the bowel thoroughly. I recall a case very much similar to his own in which I gave the tablets instead of a solution of the drug. In my case the patient had a relapse after

the ninth day of normal temperature. I then gave my remedies in solution, since in this form they disinfect the intestinal tract more thoroughly. Now I give them in solution to all patients and the results are much better.

If the honorable colleague will give his intestinal antiseptic in solution I am sure he will not experience any more relapses in his typhoid-fever cases. If this is not the reason for his failure, I can see no other except that he did not give them in "dose enough" to disinfect the intestines so as to remove the odor from the stools, for if the odor is not removed you have not got enough of the drug into your patient. Give the sulphocarbolates in such doses until you get the required results—that is, odorless stools, even if it takes as much as from 60 to 80 grains a day to do it.

I must here repeat the old and often repeated advice, "dose enough until the required results are obtained, then less often to maintain the effect." To get the best results, always give in solution, well diluted.

W. F. Radue.

Union Hill, N. J.

TETANUS TREATED WITH TETANUS ANTITOXIN SERUM AND TREPHINING

Earl P., age 16, received a slight gunshot wound in the right arm, June 26. This was treated by cleansing with hydrogen dioxide, by pulling gauze saturated with it through the bullet hole. The wound closed nicely and all seemed well until July 3, when he complained of his jaws feeling stiff and inability to swallow liquids. Tetanus antitoxin was administered, 3000 units on July 5, and 15,000 units on the 6th.

I was called to see him on the 7th at 4 p. m., my first visit. I found him with all the symptoms of the last stages of tetanus. Opisthotonos marked, toes turned in, eyes crossed, risus sardonicus persistent, temperature 103° F. in the axilla. He had not been able to swallow for four days and was conscious only a very small part of the time. At 4:30 p. m. I trephined over the posterior part of the longitudinal sinus, removing a button 5-8 inch in diameter. As soon as the trephine reached the dura mater there was bubbling of gas through the escaping blood, and after removing the button I introduced an aspirating needle into the fissure to about the depth of one inch, when there was an escape of a small amount of fluid and some gas.

In a half hour he became rational and asked for water, which he swallowed freely, with no signs of convulsions, and remained in this condition for a period of eight hours. He then had some return of the symptoms, when I removed the dressing (I had packed the wound tightly as there was some hemorrhage), and again introduced the aspirating needle, with some more escape of gas. He then again became rational and asked for food and we gave him water, broths, and a small amount of beer, all of which he swallowed without difficulty. His temperature, however, did not decline, but steadily rose until his death, which occurred forty-two hours after the operation.

I gave normal salt solution per rectum, one quart every six hours, and but little other medication, except some defervescent compound granules every hour for a period of ten hours to try to reduce the temperature. I also gave sponge-baths for the same purpose.

The marked reduction of the tetanic symptoms after the operation was very encouraging to the family, but the constant increase of temperature prevented me from giving a very hopeful prognosis.

I had read the articles in your journal and had my notes, taken from the same. I have received my best ideas from The American Journal of Clinical Medicine, and every copy is full from cover to cover of digestible food for thought for the every-day practical man. I find that my brain will not readily digest some of the long, drawn-out, hair-splitting and learned (?) articles that one has the pleasure (?) of reading in some of the ultrascientific journals, but I do get practical ideas from Clinical Medicine that assist me in saving human lives, and that are applicable at the bedside,

in the country as well as in the city or the well-appointed hospital.

I want to hear more about the treatment of tetanus, something that will enable the doctor to do more than to look wise and give a prognosis of inevitable death in a given number of hours.

GEO. B. CAMPBELL.

Bremerton, Wash.

[The articles referred to by Dr. Campbell were written by Dr. Wilber Fisk Sterman of Winterset, Iowa, and appeared in CLINICAL MEDICINE the first one in the number for April, 1909.

This procedure has received considerable attention, especially in the treatment of tetanus in animals. Results are variable. Thus far little has been done with it (so far as we have been able to learn) in the treatment of tetanus in human beings. In a disease which is fatal in so large a percentage of cases anything that promises relief or cure is worthy of experimentation. We shall be glad to hear the experience of other members of the family. One thing the doctor can do, and with almost universally good results. He can keep the convulsions under control with hyoscine, morphine and cactin. Dr. H. O. Walker of Detroit reported success with this agent in the treatment of cases of this kind, in CLINICAL MEDICINE, March, 1907. The combined use of this agent with the trephine, seems to us worthy of trial.—ED.]

AMERICAN PUBLIC HEALTH ASSOCIATION TO MEET IN MILWAUKEE

The American Public Health Association will hold its 38th annual meeting in Milwaukee, Wisconsin, September 5 to 9 next. Representatives from many of the national organizations working in the interest of the public health have been invited to be present and to discuss methods for the correlation of the work of such organizations, and for cooperation with a view to increasing efficiency and economy. Sanitary engineering will occupy a conspicuous place on the program.

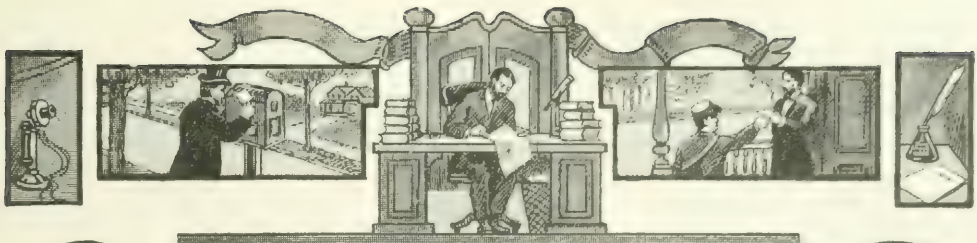
This association is the oldest national sanitary organization in the United States. Its membership extends over the United States, the Dominion of Canada, Mexico,

Dr. W. H. Harwood and family, Chasm Falls, N. Y.

and Cuba. Information concerning it can be obtained by addressing Dr. Wm. C. Woodward, Secretary, Washington, D. C.

MIND HEALING

Doctor, if you are interested in this subject (and every physician should be) you should have a copy of Dr. R. Willman's "Errors of Mind Healing." This is written from the physician's standpoint and gives facts and offers suggestions which will be of the utmost value in combating the fads, follies and fancies of mind healing in the many forms in which it is practised today. This book is only $1.00 and is worth far more to any thoughtful physician. Address Dr. R. Willman, St. Joseph, Mo.



CLINICAL MEDICINE
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William F. Waugh, A. M., M. D.
Alfred S. Burdick, A. B., M. D.

PART III.—LESSON TWELVE

VARIOLA AND VARICELLA

VARIOLA OR SMALLPOX

Hygienic Treatment.—The room in which a smallpox patient is confined should have a temperature of not under 55° F. nor much above 60° F., and there should be a plentiful supply of fresh cool air, completely changed at least four times a day. The patient, however, should not be exposed to draughts. The bed- and body-linen should be of fine, soft material, and the coverings light. A hair mattress on wire makes the most comfortable bed. No matter how fine the linen, the pressure of the bed-clothes and the mattress make the patient feel as if he were sleeping on thorns. Some relief may be afforded by a water bed, but air and water cushions are useless.

Nourishment, Diet and Stimulants.—The nourishment should be light during the vesicular and pustular stages, consisting of light broths of beef, veal, chicken or mutton, of arrowroot, eggs, jellies, boiled custards, and the like. Ice is very agreeable to most patients, and water should be given freely. In many cases, especially in children, peptonized milk is most useful.

In all cases nourishment should be given frequently but in moderate quantities at a time. However, thirst often is excessive and unquenchable, and enormous quantities of fluid are consumed by the patient.

During the initial and vesicular stages alcoholic stimulants are not required, unless it be in exceptional cases attended by much cardiac weakness and prostration. During the pustular stage and period of scabbing alcohol often is of decided benefit. The indications for its use are prostration and a weak, rapid, compressible or intermittent pulse.

Vesicular and pustular hemorrhagic cases, as well as some confluent ones, require alcoholic stimulants in the vesicular stage, the chief indications being those just mentioned. The best alcoholic stimulants are good grape brandy, whisky or champaigne. In convalescence wine is very beneficial, and port is perhaps the best. To those in the habit of drinking malt liquors, stout bitter ale or beer may be given with advantage.

As soon as the appetite returns, light food such as chicken, boiled mutton, etc., in limited quantities, may be given, and a few days later the ordinary diet of health may be resumed.

Nursing of the Patient.—Careful and judicious nursing, with the most scrupulous

attention to the cleanliness of the bed-linen, are all-important. The pus oozing from the pustules very quickly soils the body-garments and bed-linen, which therefore should be changed very frequently, and of course thoroughly sterilized. The mouth and nose should be cleansed frequently, and above all must the eyes be watched constantly and be bathed and cleansed systematically and thoroughly. It is impossible to overrate the importance of this attention.

The handling of the patients must be most gentle, and in raising the head or shoulders the nurse's arm should always be placed under the pillow. Infants, when being nursed, in the arms, should rest on a pillow on the nurse's arms. Attention to small details add much to the patient's comfort.

In the acute stage it is not practicable to wash patients suffering from severe or even moderately severe smallpox; nevertheless, the skin should be cleansed as much as possible by sponging and such ablutions as will readily suggest themselves to an intelligent nurse. Baths should be given as soon as the patient can bear them.

Managing the Delirious.—It is perhaps in the management of delirious patients that the most trying part of smallpox nursing arises. Such patients require most careful and constant watching. Very often they seize the occasion of the nurse's temporary absence and make their escape through door or window. For this reason they should not be left unattended for an instant.

In the most common form of delirium the patient has the strongest objection to being considered ill and insists upon having his clothes given him. A judicious nurse will endeavor to distract his attention, talk to him, humor him as much as possible, tell stories, prevaricate, do anything but argue with or contradict him; and must never, except in some extremity, use mechanical restraint. A delirious smallpox patient, when thoroughly roused and angry, will not hesitate to knock the nurse down and make his escape.

When the delirium can not be controlled by drugs, a useful device is to dress the patient in a dressing gown, stockings and slippers and allow him to walk up and down the ward or around the room, the nurse holding the patient's arm, at the same time keeping her eye on the door and window. Very often the patient, after a few turns, finding that he is unable to continue the exercise, is glad to get back to bed. But in many instances it is necessary to have the assistance of an additional nurse or male attendant. If the bedroom be on the first floor or above, stops should be fixed in the sash grooves, so that neither sash can be opened wider than six inches.

Drug-Treatment.—Waugh says that the weight of evidence favors the claim that saturation with calcium sulphide inhibits the action of the protozoan. If this is quickly accomplished by administering a grain of the medicament every half to one hour, till the perspiration has the odor of the sulphhydric acid, and thereafter enough to sustain this effect, the subsequent course is modified, secondary fever does not arise, as the suppuration upon which it depends is checked and abortive forms appear. The remedy is harmless in any event. If, however, it is given concomitant with protective vaccination, the sulphide prevents development of the vaccine process also.

In the routine treatment of smallpox morphine is invaluable, for not only rest and sleep are induced by it but a moderate degree of comfort is obtained for the patient during the painful stages of vesiculation and pustulation.

If for any reason morphine is not indicated or ill-advised, trional or sulphonal may be given as a hypnotic.

Insomnia and delirium are also controlled well by hyoscine hydrobromide, 1-100 grain hypodermically. If the delirium is not very pronounced, some of the milder hypnotics like sulphonal, monobromated camphor or caffeine valerianate (1-6 grain) meet the indication admirably in cases of depressed irritability.

In some cases, especially the mixed hemorrhagic and pustular, it is often impossible to control the delirium completely by the administration of drugs.

There is less danger of delirium and of irritability of the stomach arising if the

bowels are kept freely open and renal elimination is kept up.

Vital depression is indicated by pallor, shrinking of the face and hands, rapid, feeble pulse, tremors, subsultus tendinum, and delirium. This can be fortified against by careful nutrition during the early stages, the free use of nuclein and cardiac tonics as soon as their indications are presented, and by the use of calcium sulphide, to restrain the destruction of tissue.

Local Indications.—Various agents such as thymol, linseed oil and lime water, or cold compresses, have been employed *to relieve the itching*. Hot compresses are more agreeable in some cases. Discharging pus should be removed by any mild antiseptic lotion, while dusting powders allay fetor.

Welch believes that painting the skin with pure tincture of iodine tends *to prevent pitting*. He thinks iodine shrinks the pustules, hastens decrustation, diminishes liability to subsequent suppuration, and completely destroys the odor from that portion of the skin to which it is applied.

Sodium bicarbonate with petrolatum softens the scabs, antiseptic baths aiding in their removal. During the stages of incrustation and decrustation tepid baths, one-half to one hour in duration, may be given daily with a view to facilitating the separation of the crust and cleansing the skin of the trunk and limbs.

The nose and mouth must be kept clean by spraying, syringing or swabbing with boric-acid solution or a mentholated alkaline antiseptic wash. Multiple superficial abscesses should be opened as soon as they arise, those on the scalp by crucial incision, hot boric-acid fomentations being then applied. Abscesses should be opened as soon as pus is detected.

For laryngitis a steam tent with warm inhalations should be used. If *dyspnea* be great or edema of the glottis occur, tracheotomy may have to be performed. Ice may be held in the mouth, also cold applications made to the neck, in cases of inflamed glands.

Constipation should be relieved by agreeable but effective laxatives, the best, in my opinion, being the effervescent saline laxative. Else a suitable enema is to be given. Diarrhea rarely, if ever, occurs when intestinal antiseptics have been administered.

Care of the Eyes.—It is very important that the eyes be kept free from discharge. Much may be done to alleviate if not to prevent some of the complications that are dangerous to the eyesight. Conjunctivitis and ophthalmia usually yield to the applications employed for these affections. Particular care should be taken that oil or petrolatum be frequently applied to the edges of the lids.

For simple corneal ulcer an *ointment* composed of the yellow oxide of mercury, 2 grains; atropine, 4 grains; petrolatum, 2 drams, applied to the eye twice a day, is a reliable application.

During convalescence the patients need tonics such as the triple arsenates, or iron, berberine and calcium lactophosphate.

The prevention of smallpox is most efficiently insured by vaccination and revaccination and the prompt isolation of the sick. Should smallpox break out in a family, all those not affected should be revaccinated at once, and repeated in cases of failure. If revaccination be performed within three days of reception of infection, if it proves successful, none of those exposed to the infection will develop smallpox. If done later it may or may not modify the attack.

VARICELLA, OR CHICKEN POX

Mild attacks of chicken-pox do not require special treatment, but it is advisable that the patient be kept in bed for a short time and put on light diet. Occasionally, however, we encounter very severe cases of chicken-pox, resembling very much mild forms of smallpox. These are the hemorrhagic and gangrenous forms, and they require careful nursing and good food. More or less stimulation is indicated if symptoms of collapse occur. If ulceration or gangrene sets in, the patient must be kept in bed and suitable antiseptic dressings applied.

In this disease, the same as in smallpox, calcium sulphide answers a very useful pur-

pose. This drug and the arsenic sulphide are two important remedies. The administration of 1-3 grain of calcium sulphide every two hours and 1-67 grain of arsenic sulphide after each meal seems to lessen the duration and severity of the disease.

As in all infectious febrile disorders of children, free elimination must be maintained in chicken-pox, while in strumous and ill-fed children tonics such as the triple arsenates should be given. If fever is very high, aconitine or the deferverscent compounds will prove most beneficial. If the skin is well sponged with a solution of sodium chloride to which a little cinnamon water has been added, or with even a weak carbolated lotion, the irritation will subside and infection will be less probable.

Vesicles upon the face should be opened with a fine aseptic needle and covered with aristol collodion. Infected vesicles should be cleansed with solution of hydrogen peroxide and then touched with pure oil of turpentine or dusted with aristol or europhen.

GEORGE F. BUTLER.

Chicago, Ill.

PREVENTION AND MANAGEMENT OF SMALLPOX

My personal experience with smallpox is very limited; with vaccination, however, my experience has been large. For five years I supervised a section of Philadelphia for the Board of Health. This section contained 40,000 people. Of this number I myself vaccinated one-fourth, and saw to it that most of the others also were vaccinated.

Effectiveness of Preventive Vaccination.—During this period smallpox was always prevalent in the city, and quite a number of cases occurred in my wards. But toward the end of my service the disease prevailed on three sides of this territory—the fourth was the Delaware River—but did not cross my lines. Reason: the vaccination was so thoroughly done that there was no material for the infection to prey upon.

Mode of Operation.—Every three months I visited every house, vaccinated those who needed it, visited them in a week and again in another week, and thus I got every case of illness that followed vaccination, whether due to it or not. Every case of rash was investigated, and it was simply impossible for any disease to occur from vaccination and escape me. Whenever smallpox appeared in the district I received official notice to call at the house to investigate. As a rule I then vaccinated every person within a block from the infected house, even if they had had smallpox or had been vaccinated previously. I believe I thus acquired such a knowledge of the malady as to justify my claim of really knowing vaccination. Very few outside of the vaccine physicians know enough of it to justify them in expressing an opinion.

Not one person whom I vaccinated contracted smallpox, and one only had varioloid (five years after vaccination), having possibly a dozen pocks. Otherwise the protection was perfect.

Story of the Unprotected.—But among the unvaccinated smallpox played a different part.

A young man came home to his parents with smallpox. I vaccinated all the others in that house and the next one, all the inmates escaping. But in the second house was an unvaccinated babe whose existence was kept from my knowledge, and it took smallpox. The remaining houses in the block were protected except one at the corner, where lived an English antivaccinationist. Smallpox swept away his unprotected family, the same thing having occurred once before during a previous epidemic.

Before I had gotten through the street whose houses backed up against the infected one, a babe in the house back of the first case was seized. That was all there was there, but the grandfather of the second case visited the place and carried the infection to a child in the southern part of the city. Every unvaccinated person within a block came down with smallpox, but not one vaccinated one was attacked.

Nobody need tell me vaccination does not protect—*I know it does protect.*

Duration of Protection.—How long? That depends on the kind of vaccination and on the patient. I have known persons vaccinated but once who never could take another. Others take at varying intervals. I myself take every five years.

My rule was to vaccinate whenever there was exposure, for if the previous vaccination protected against smallpox, it would protect against vaccination.

My friend, Surgeon Payne, United States Navy, was on duty on a man-of-war whose crew had been exposed to smallpox. He vaccinated all hands. As soon as the arms were well he revaccinated all who had taken, and out of about 250, a dozen took the second time. When these had healed, he vaccinated them for the third time, and I believe one or two took again. But a fourth trial failed on all. This showed a varying degree of susceptibility, and that by immediate revaccination this was so completely exhausted that not a man took smallpox, although repeatedly exposed to it.

I believe this procedure is better than the German system of vaccination in several places at one time. Nine vaccinations on each arm make a pretty sick patient!

Untoward Effects.—What of the evils from vaccination? I saw one child who, I believe, contracted tuberculosis from a vaccination, dying in a year. The sore was not normal and a keloid-like mass formed over it after prolonged suppuration. The firm supplying the virus had trouble with it. The points were coated with virus and placed in a drying chamber, but they would not dry. They proved to be contaminated with tuberculosis, and so the firm gave up the business. Abscesses formed in the axilla of the subjects sometimes, until I finally learned the cause.

We used human virus then, removing the scab on the fifteenth day. There is a septum through such a scab, and the side next the flesh is pus, and the use of this caused the abscesses and fainting also sometimes followed its introduction. By using only the outer portion of the scab, both these accidents were avoided. Chickenpox and impetigo contagiosa sometimes got into the virus and made trouble, but nothing really serious. A few times pneumonia developed subsequent to vaccination, but I never understood why this should be ascribed to the virus. Take 10,000 people living in a city, maybe of the poorer class, and even slum dwellers, and would it not be natural to find two or three cases of pneumonia among them in the six weeks, irrespective of vaccination?

However, every case of illness following vaccination is sure to be attributed to that, whether justly or not. Furthermore, vaccination seems to arouse any latent tendency in an individual to certain diseases, as smallpox, for instance, developed scrofula. Take a family whose babes had eczema with each tooth, and vaccinate one of these children before the first tooth appears, then, as the vaccination fever rises, the family-eczema will become manifest. All these are but trifles. Excepting the one case of tuberculosis, I have never known fatal, permanent, or even serious trouble to arise in consequence of vaccination.

Incidental Benefits.—On the other hand, leaving out of consideration the value of smallpox immunity, I have witnessed enough beneficial results from vaccination to far outweigh its real evils. I believe in the power of vaccination to dissipate a lingering whooping-cough, for I have actually done this very thing many times for this purpose with success. I have seen weakly children become strong and vigorous after a vaccination which was followed by a general erythema.

As an expert in vaccination I have investigated many cases where it was blamed for wrongs inflicted on the subjects, but not in a solitary case have I been able to detect any real injury done apart from the trifles above mentioned. But despite the truth and with great injustice, these very cases were used by antivaccinationists to create popular prejudice against this priceless procedure.

Management of Smallpox.—Dr. Butler does not leave much chance for discussion after his masterly presentation of the treatment of smallpox.

Of remedies, calcium sulphide fills nearly the whole field.

There is nothing distinctive in the treatment of smallpox. Keep the bowels clear and disinfected; saturate the system quickly with sulphide; reinforce vitality with nuclein; treat the fever with aconitine, digitalin, veratrine and strychnine arsenate, combined as indicated by the condition, and there is little to be added.

I should think carbenzol might relieve the itching and possibly prevent pitting, or kaolin paste might prove locally beneficial.

One thing perhaps not generally known is the power of vaccination to modify a smallpox already contracted. Smallpox incubates twelve days, vaccinia, only seven. Vaccinate during the first five days of smallpox incubation, and the vaccine will forestall the variola and favorably modify the attack—the more so, the earlier the inoculation is made.

One further message to our own folk, those who prefer the active principles. I have urged the others of the profession, while they were assiduously cleaning up the premises so that no whiff of impure air might reach the patient, which would convert his attack into a malignant one, to be sure not to neglect the pounds of poison in his body being absorbed from his bowels into his blood.

Now I say unto you, my alkaloidal confrères, while you make the alimentary canal clean and aseptic, thus stopping fecal toxemia, do not under any circumstance neglect to place the sick-room, the house and environment in perfect sanitary condition. It is well worth while.

WILLIAM FRANCIS WAUGH.

Chicago, Ill.

COMMENTS ON THE LESSON

We have had a number of very instructive papers this month on the treatment of scarlet-fever. Many interesting cases have been reported, among them the following:

Preventing Scarlatina.—Dr. B. F. Harding of Mansfield, Ohio, in answer to question two (as to whether he believes scarlet-fever can be prevented after exposure or not) says:

"I am unable to say whether scarlet-fever can be prevented after exposure or not, but I do believe that the severity of the disease can be lessened by proper and direct therapeutics. (I like very much the term "direct therapeutics.") As soon as a person has been exposed to the disease, I would advise isolating him for a short period, see that the bowels are thoroughly moved, and each morning thereafter I should give a saline laxative, and follow with intestinal antiseptics, calcium sulphide to saturation, a light liquid diet (all fluids sterilized), avoid raw fruits and meats, wash out the mouth and nares with a solution made with Seiler's antiseptic tablets. This treatment should be continued several days after the stage of incubation, and then, if any sign of scarlet-fever present itself, treat it symptomatically. Calcium sulphide should be kept up at longer intervals after the eruption has appeared. Whether this line of treatment will prevent scarlet-fever after exposure is a question that would be hard to answer by those who have never tried it, but from my own experience I feel that it will prevent or at least modify the disease to a great extent. True, there are those who are exposed that do not contract it, and that reason alone would put in question any preventive treatment."

Dr. Harding states that he has no complications since he has practised "direct therapeutics," and used the active principles. He says:

"At the present time in our city we are having a large number of scarlet-fever cases. To describe a typical case with all its complications and sequelæ I should have to go back to the time when I depended upon the use of the galenics or some of the mixtures that are put up in five-pint bottles with the label "scarlet-fever" in big letters, and the statement from the manufacturer as to what it contained. I do not desire to appear egotistical, but when I see the change that comes from the use of the alkaloids, call it direct therapeutics if you desire, that suits me very well. You may call me an egotist or anything that you please, so long as I get

the results. As before stated, I should have to refer back a number of years to give you a typical case of scarlet-fever with all its dangerous complications, for under the present mode of treatment if I have seen the case in time I have been fortunate enough to escape the complications that usually arise, or all my cases I have had since I commenced the use of alkaloids have been very mild cases. Be that as it may, I am satisfied to call them all mild.

"Results is what I am after, and I surely have been getting good results and no bad after-effects since my use of active principles. During the month of May and June we had two epidemics here, one of measles, the other of scarlet-fever. An early diagnosis under the conditions existing was not always easy, especially where the rash was slow in making its appearance, not that the two diseases are anything alike, but the early symptoms in children are very much alike in all diseases."

A Scarlet-Fever Case.—Dr. Theo. Schmalzriedt of Detroit gives us an exceptionally interesting paper on scarlet-fever this month and we take the liberty of quoting quite extensively from his report. He writes:

"The following is from my case records: Willie K., aged five years, took sick July 4, 1910. Profuse dark-hued rash covered every inch of his body for seven days before it showed signs of fading. Tonsils tensely edematous and fauces of deep-scarlet hue. Tongue typical. History of enlarged adenoids, oft-repeated attacks of tonsillitis, frequent exacerbations of a chronic muco-enterocolitis. Urinary suppression and fecal toxemia pronounced. A sparse, delicate lad with feeble resistance.

"Temperature 104.6° F., pulse 170 and feeble, respiration 30, on July 4. Defervescent compound and dosimetric trinity were given together and pushed so as to hold the temperature at about 102° F. Calomel and saline laxatives were begun on the first day and continued at proper intervals as long as there was alimentary putrefaction, which was for more than four weeks. The sulphocarbolates were pushed as fast as he could take them. Hot sponge-baths and pilocarpine nitrate reestablished the skin function. Every two hours a nasal douche of boric acid, thymol and glycerin in watery solution was used to cleanse the fauces and nares. Used Birmingham's nasal douche. The administration of calcium sulphide to saturation was begun at once and continued throughout.

"During the third week the temperature ran 99.° to 100° F., while mild cervical adenitis and scarlatinal nephritis with edema of face, abdomen and scrotum appeared. The throat was now quite normal, the appetite returning, but the stools still showed intestinal putrefaction. Urine was scant, specific gravity 1005, trace of albumin. A mitral murmu was distinctly audible. Infusion of digitalis and Basham's mixture reduced the pulse from over 110 to 85 and increased the urine somewhat, but did not faze the edema. Even the persevering use of calomel, saline laxative, intestinal antiseptic, arbutin and the triple arsenates with nuclein made no impression.

"At the beginning of the fourth week the patient was very anemic and weak, and the edema undiminished. I now administered apocynin, gr. 1-12; phytolaccin, gr. 1-6; pilocarpine, gr. 1-32, every one-half hour, and within forty-eight hours we had decided results, the quantity of urine doubling and the edema on the decline. Gude's peptomanganate of iron was added and by the end of a week showed results which I have often noticed when other forms of iron had failed me. At the end of the fourth week temperature was normal, pulse 82, urine normal in quantity and character, the edema had entirely disappeared, anemia was improving, glands and throat were normal. But the stools still showed intestinal putrefaction due to the chronic intestinal catarrh with which he has been afflicted for several years and for which we can now institute the proper treatment. Patient was permitted to sit up on the thirtieth day.

"Desquamation was not completed until the thirty-third day. He is still on peptomanganate of iron, triple arsenates with nuclein, phytolaccin, calcium sulphide and

intestinal antiseptics. The occasional use of calomel is necessary to prevent putrefactive toxemia.

"Diet was as follows: During height of fever and the fecal toxemia, water and barley water only were permitted, then, with the first break in the fever, boiled rice, tapioca, corn starch, macaroni, beef tea (the latter continuously given had no effect on the kidney condition, the edema disappearing under its use). Bacon, baking-powder biscuit and dry toast were given by the third week. Fruits and vegetables are being withheld because distinctly harmful in cases of mucous colitis and enteritis—grape juice disagreed decidedly.

"I am satisfied that under the 'old-fashioned' treatment this patient would have died early from toxemia, or later from septicemia."

Another Case of Scarlet-fever.—Dr. R. O. Baker (Lockport, New York) reports a case as follows: "The most severe case I had in the recent epidemic was a lad of seventeen years of age, giving a history of having had rheumatism two years previous. When first seen he had a temperature of 104° F., a severe angina, a marked rash, and was in a stupor. The bowels were cleaned out and the sulphocarbolates given; and the dosimetric granule given to lower temperature. The teeth were cleaned and Seiler's solution used on throat, besides kaolin paste externally.

"On the third day there was pain, tenderness and swelling in both wrists and elbows, which extended to the neck and thence to ankles and knees. These were treated with cold moist compresses and an alcohol rub was given about every four hours. Digitalin was added to the above medication to increase kidney elimination. The rheumatoid symptoms cleared up in three or four days and the lad made a moderately quick uneventful recovery save for some cardiac enlargement and irregularity—no murmurs. The case was remarkable for the early and extreme involvement of the joints, a complication which I had not hitherto seen and which puzzled me, but which Holt states is not rare."

Next time, Doctor, push calcium sulphide for those joint complications.

More Scarlet-fever.—Dr. Ernst of Bridgewater, N. S., Canada, writes as follows of a case of scarlet-fever which he recently had under care and tells how he treated it:

"S. F., a young lady of eighteen, came to my office with the eruption out and a mild sore throat. I sent her home, isolated the sick-room by means of a sheet wet with phenol solution over the doorway. Put her in bed and saturated her as quickly as possible with calcium sulphide. Cleaned out the alimentary tract with calomel and salines and kept it clean by means of the combined sulphocarbolates. Gave nuclein, 10 drops daily. Used just a gargle for throat as it was not very sore. Used mild antiseptic inunction and a few drops of formalin put in the bed, under the cover; both of these were to minimize the danger of contagion. The diet ordered was chiefly milk and eggs. Meat was excluded. I made three visits, in all of which I found her doing well. There were no complications. I usually meet none, except in neglected cases. In a week convalescence was fairly established, thanks, I think, to the calcium sulphide. There were no sequels.

"The above is about my routine treatment when a case comes to me fairly early in the attack. If you do not allow complications to develop, you will have none to treat. Although there were nine in the family who never had the disease it did not spread. After the disease was all over, the room was disinfected by saturating sheets with formalin and hanging them on lines stretched across the room. This happened about five years ago, but no person has ever taken the disease from that house. The house was taken down a year ago and replaced by a new one."

Management of Scarlet-Fever.—Dr. R. W. Halliday of North Edmonton, Can., advocates the following treatment, and writes of a case he cured successfully in his pre-alkaloidal days, although doubtless the calcium sulphide administered to his patient accounted largely for the favorable outcome.

"Calcium sulphide should be given freely in each case on account of its effect upon the

infectious element. Its systemic effect is strongly bactericidal. Nuclein augments the number of the leukocytes. Pilocarpine is of service when the skin is hot and dry, when nephritis threatens, but always in the absence of threatened pulmonary edema. Iron is of great value in convalescence, and is best given as Basham's mixture. Aconitine is invaluable at any stage accompanied by fever, being given with digitalin always. Veratrine is to be used in conjunction if the pulse is strong and the skin dry, or the kidneys show signs of failing, If asthenia supervenes, substitute strychnine for veratrine.

"On May 23, 1906, I was summoned to see W. H., aged 28. The man had driven in from thirty miles out in the country for supplies and was living for the time in a tent. The day was rainy and the tent leaked, wetting even the bed-clothing. I found him with a typical, though mild, case of scarlet-fever. I advised his removal to a private house, but he insisted on going home. He stated that his whole family had the same disease like himself. Nor would he consent that I visit them. I was forced to allow him to go and to take medicines with him. It was in my prealkaloidal days, so I had a druggist make up a pint bottle of a potassium-citrate renal mixture, also a mixture of tincture of aconite in small dosage. I gave him a bottle of carbolated vaseline, besides a good lecture, and let him go. I came past his place about a month afterward and saw him. To my inquiry as to how many of the family he lost, he stated that every one of them came through all right, though pretty sick. Of course the infection was mild, which was fortunate for them. I neglected to state that I also gave a plentiful supply of calcium-sulphide tablets, and consider that this drug was largely responsible for the favorable outcome."

Further Views on Scarlet-Fever Treatment.—Dr. T. H. Line of Marquette, Neb., has the following to say regarding the treatment of scarlet-fever:

"Calcium sulphide should be given to counteract the sepsis or special infectious element; nuclein to energize the leukocytes; pilocarpine, when it is necessary to eliminate, should be given, and it is especially valuable in this disease because the focus is in the skin. When a patient has so far recovered that there is no sign of nephritis other than a little albuminuria and anemia, or when anemia is present, Basham's mixture or the triple arsenates of quinine, iron and strychnine may be given. When fever is high, arterial tension also, and there is marked congestion, aconitine, or preferably the defervescent compound, is indicated. Don't you forget it, I want all my patients to have veratrine. It is an ideal eliminant.

"Miss W., 14 years, was taken to Omaha, Neb., Tuesday, by her father. Dr. Patten, of Omaha, removed some adenoids from the nares on Wednesday and she came home the same day. Thursday she felt dumpish, which was attributed to the local anesthetic. Saturday morning she was worse, and I was called.

"I found her delirious, with a temperature of 104° F., a strawberry tongue, and as red a throat. Eruption fairly well developed. To be sure, I had counsel and diagnosis confirmed. I gave the patient a calomel and podophyllin purge and after this the sulphocarbolates throughout the disease. From the beginning calcium sulphide was given to the patient, her mother and her two brothers and sister, during the whole siege. Defervescent compound all the time, dose varying according to the fever. The third day the delirium cleared up, and improvement was rapid from that time on. As a tonic we gave, during the entire course of the disease, this mixture:

Tincture of ferric chloride....drs. 3
Potassium chlorate.....drs. 2
Glycerin and water to make..ozs. 3

"Directions: One teaspoonful every three hours.

"During the height of the eruption and to prevent itching and favor desquamation, as follows:

Eucalyptol. .....dr. 1
Ichthyol.....drs. 2
Ointment.....ozs. 3

"Label: Apply to whole body to favor desquamation, once or twice or more times a day.

"Besides this, the whole household used a 10-percent solution of carbolic-acid crystals and 10-percent eucalyptus oil in sterilized olive oil, twice a day as long as the eruption lasted, and once a day after this, all over body.

"The patient's throat was swabbed with the bichloride solution referred to under another head, and the members of the family had their throats cleaned with a 10-percent carbolic-acid solution. At first, according to my usual custom, for three days I allowed no food. Then soda-water, hot water and milk in equal quantities, and gradually increased the diet until the fourteenth day, when a full meal was taken. Recovery was rapid and no complication or sequel of any kind resulted. Patient is in robust health today.

"You will notice that I gave the family calcium sulphide all the time. Result, while the patient was isolated in one room of a small three-room cottage, none of them had anything worse than a mild sore throat, and one of them was in bed one day. Quarantine raised at end of thirty-fifth day."

Bronchitis as a Texas Man Treats It.—Here follows the method adopted by Dr. W. P. Barron of Carmona, Texas, showing that the disease, whether it be in Texas, Montana, Ohio or anywhere else, yields to about this line of treatment:

"I treat acute bronchitis with an initial dose of some brisk cathartic, a hot epsom-salt bath followed by a hot lemonade and hypodermic of pilocarpine. This I follow with a dose, to effect, of either dosimetric trinity or defervescent compound, with emetine every one-half hour to an hour until effect—then less often. I follow this with strychnine arsenate, gr. 1-67, every two hours, combined with some soothing cough mixture. I also get good results from hot epsom-salt packs to the chest.

"In chronic bronchitis I get better results from practically a routine treatment of strychnine arsenate pushed to tolerance, and nuclein. I have my patients sleep with a cold epsom-salt pack applied to the chest. I use the sulphocarbolates after each meal and twice to three times a week give brisk cathartics. Usually the cold epsom-salt pack relieves the cough. If it does not I give a mixture containing heroin hydrochloride, gr. 1-6, creosote, minims 4, terpin hydrate, grs. 4, calcium glycerophosphate, grs. 4, gives me fairly good results. Of course it is to be understood that I vary these ideas to suit the case. I am speaking only in a general way."

The Treatment of Asthma.—We have received very few papers as yet on the subject of asthma, but our good friend, Dr. I. N. Brainerd of Alma, Michigan, whom I know personally and who is a very successful practician, writes us of a case of asthma of his which he has helped, and gives his treatment as follows:

"One case which has given many of us a good deal of trouble is in a man, now about 60 years old. He is a hard worker, and his habits are good. He is 'wheezy' all of the time; and occasionally, he has to quit work, and call in a doctor. I think that about everything has been tried on him, but with little good, except for the relief of the paroxysms. The last doctor has pushed lobelia to the limit, I would think, but it did no good. For a long time I have been giving him hyoscyamine and ammonium chloride internally, and having him smoke stramonium (he does this much for himself, however). The last time (now four or six months ago) I gave him calcidin. I think this has helped him more than anything else.

EXAMINATION QUESTIONS

1. With what diseases is smallpox most likely to be confused? Give the most important diagnostic signs.

2. Give illustrations of the value (or lack of value) of vaccination as a preventive measure.

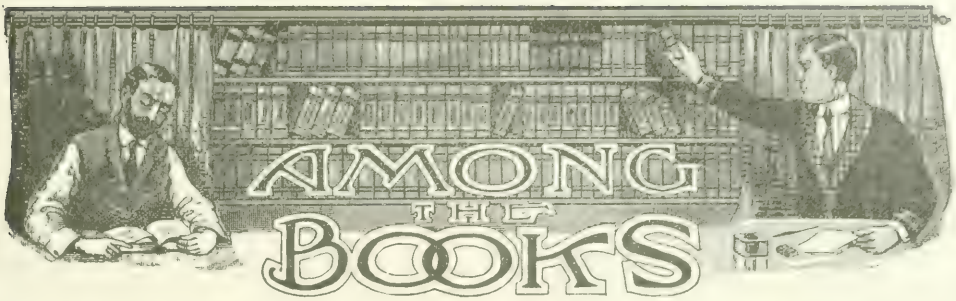
3. What therapeutic value has light in the treatment of smallpox, and how should it be applied.

4. Tell what measures you have used or would use to prevent pitting in smallpox cases.

5. Describe one smallpox case, and how you treated it; or, if you have had no experience, outline a satisfactory treatment for a typical case.

6. Describe a severe case of chicken-pox, and tell how you would handle it.

7. What is "Cuban Itch"?



A CORRECTION

In Clinical Medicine for March, on page 360, the price of Campbell's "Modern Treatment and Medical Formulary" was quoted as being $2.00. This was an error and should have been $2.50. The Bookworm regrets that this mistake has been made and wishes herewith to correct it.

POPE'S "HYDROTHERAPY"

Practical Hydrotherapy. A Manual for Students and Practitioners. By Curran Pope, M. D. 646 pages, large 8vo. Cincinnati: Cincinnati Medical Book Company. 1909. Price $6.00.

The volume before us offers a detailed and exhaustive study of the theory and practice of the therapeutic application of water which combines the best that the author has been able to glean from other sources with the results of his own experiences extending over twenty years of hydrotherapeutic practice.

After a historical introduction and a chapter on the anatomy and physiology of the skin, the physiological action of water externally applied, as well as internally, is studied, and the associated procedures of light- and of hot-air therapy are briefly considered. Then the technic of hydrotherapy is described in detail. The larger portion of the book, however, is devoted to the special therapeutics of water, a consideration of the various diseases and pathologic conditions in which hydrotherapy is of value occupying sixteen of the twenty-six chapters of the book.

The hydropathic physician, or hydriatrist, will find the work useful for reference. For the student or practitioner who may desire to acquire systematically a knowledge of hydrotherapy the book will also prove of value, although due warning is given that there is no royal road to knowledge, and that this is true of hydrotherapy as well as of all the other departments of science. However, a certain line of procedure may aid in more easily mastering the art. It would not be amiss cursorily to refreshen his general knowledge of the anatomy of the nervous system and of the blood and lymph circulations. He should then carefully ground himself in the physiological action of water and its associated applications, such as hot air, electric-light baths, and so forth. A mastery of the general principles of hydrotherapy, its rules and regulations, will make the technic more easy of comprehension and its rationale apparent.

In the consideration of continuous warm baths we miss reference to Dr. A. Rose's many articles on this form of treatment. Dr. Rose, more than anybody else in this country, has contributed to establishing it on a sound basis and on determining its merit.

The work will prove of particular value to physicians who have charge of institutions where the apparatus and paraphernalia for the application of water are properly installed; but even without elaborate apparatus much may be accomplished. How? may be found described in the book here recommended to our readers. We consider the following from the preface to be particularly good advice:

"Much information and a clearer insight than mere description can give, is to note the physiological action of hydrotherapy by 'putting yourself in his place.' One application of a cold jet douche to the spine gives more realistic information than pages of description. I therefore make the suggestion to 'practice on yourself' first. Many experiments herein mentioned have had the author as principal party in interest. . . . It should never be forgotten that physiological forces so powerful for good may equally work havoc if carelessly and improperly applied. Therefore utility and exactitude of method have been the constant aim."

BARRY'S "SCHOOLROOM HYGIENE"

The Hygiene of the Schoolroom. By William F. Barry, M. D. Revised Edition. Silver, Burdett & Co., New York, Boston, and Chicago. Price $1.00.

This is the third edition of a very excellent manual for the hygiene of schoolhouses as well as of school children and teachers. While the book affords much information that is of value for those in charge of city schools, these, as a rule, have at their disposal the services of trained men who ought to, if they do not, see that the welfare of the children is properly guarded.

We consider the book particularly of use for the country physician who, by virtue of his prominent position in the community, is often in a position to give advice concerning the management of country schools, and he will find in its pages the information he needs in order to advise intelligently the school commissioners and the teachers.

The little volume does not, however, limit itself to considering means of protecting the health of children and teachers, but begins at the beginning with the proper construction of the schoolhouse, the arrangement of plumbing, of coat-rooms, and so forth, and pays careful and necessary attention to the school furniture, which all too often is the cause of faulty development of children.

The author's experience as a member of the school board in his home town makes his statements of particular value and importance, and we are glad to recommend this little manual to the careful study of all our readers who are interested in the welfare of the men and women of tomorrow.

HOGARTH'S "INSPECTION OF SCHOOLS"

Medical Inspection of Schools. By A. H. Hogarth, M. B. Ch., D. P. H., County Medical Officer of Health for Buckinghamshire (England). London and New York: Henry Frowde, Oxford University Press. 1909. Price $2.00.

A most valuable book, to be urged upon all who take and all who should take an interest in public hygiene.

MOODY'S "BACKWOOD'S SURGERY AND MEDICINE"

Backwoods Surgery and Medicine. By Charles Stuart Moody, M. D. Outing Publishing Company, 315 Fifth Avenue, New York City. Price $0.75.

Every reader of CLINICAL MEDICINE knows Dr. Moody. Not every one, however, knows that the Doctor is an eloquent advocate of the outdoor life—that he loves to fish, hunt and run a motor boat, and that all of the time that he can spare from a busy practice (and much that he feels he really ought not to spare) is devoted to life in the woods and on the water. Living, as he has lived, on what we of the luxury-loving East consider the frontier—even among the Indians—he has come in contact with the backwoods' accidents and emergencies with which many a layman has to deal, and has learned how to handle them with a small equipment. In this little book he has succeeded in condensing this knowledge for lay use in the most practical way possible. We have never seen anything which told as much in so small a space.

The subject-matter appeared originally as a serial article in the *Outing* magazine. In the book it is slightly amplified. There are chapters on the treatment of fractures, sprains and dislocations, on caring for burns, cuts, drowning, and for the minor

accidents, for the medical treatment of camp diseases, on serpent wounds, and an appendix describing the camper's medicine chest.

It is interesting to note, among many other excellent features, that Dr. Moody is a believer in the active-principle and "clean-out" treatment. Among the remedies recommended are the dosimetric trinity, aconitine, digitalin, apomorphine, elaterin and the intestinal antiseptic. Of course he uses the small dose of calomel, and sends along a few of the chlorodyne tablets, as well as a supply of quinine and other useful remedies. Dangerous poisons are not included in the camper's kit.

The common camp diseases and accidents are described in the simplest language, and directions given for their care. The entire book is replete with practical help that should be the means of saving many a life. We earnestly recommend it to every physician, who will find it not only just the book to give to members of his professional "family" going on an outing, but well filled with suggestions that any doctor may profit by.

CHILD'S "DISEASES OF WOMEN"

Diseases of Women. A manual for Students and Practitioners. By Charles Gardner Child, Jr., M. D. The Medical Epitome Series, Lea & Febiger.

COPPEN'S "MORAL PRINCIPLES AND MEDICAL PRACTICE"

Moral Principles and Medical Practice: The Basis of Medical Jurisprudence. By Rev. Charles Coppens, S. J., Professor of Jurisprudence in the John A. Creighton Medical College. Benziger Brothers, Publishers, New York and Chicago. Price $1.50.

Those who have read the discussions of the subject of Criminal Abortion that have appeared in CLINICAL MEDICINE, and especially the Catholic viewpoint, as given by Dr. Flynn, will obtain a full and complete statement of Catholic ideas and Catholic practice on this subject in a strong, logical way, in this book. Whatever the physician's religious opinions, he will undoubtedly be benefited by its perusal. In addition to the chapters on craniotomy and abortion, the author discusses the views of scientists and sociologists, venereal escesses, the physician's professional rights and duties, the nature of insanity, the legal aspects of insanity, and hypnotism and the borderland of science.

CHILDRESS' "OATEN REEDS"

Poems by Rufus Childress. Published by The Clinic Publishing Company. Chicago. Price $1.00.

We confess to a peculiar interest in this book, because we know the author and have had a slight opportunity to peer beneath the surface of his personality. He lives in a world of dreams, peopled by these children of his fancy—his poetical thoughts. To him, I know, these are the realities of life; the men and women of his every-day life, the duties of his daily work, the unsubstantial and the unreal. His poetry is real poetry and his book worthy of purchase by anyone who loves verse. Mr. Childress is one of our laboratory workers.

EVANS' "OBSTETRICS"

Obstetrics. A Manual for Students and Practitioners. By David James Evans, M. D., of McGill University, Montreal, Canada. Second edition, revised and enlarged. Illustrated with 172 engravings. Philadelphia and New York: Lea & Febiger. 1909. Price $2.25.

A fine volume of 426 pages. A good book for reviewing one's knowledge of obstetrics after years of nonpractice.

TAUSSIG'S "ABORTION"

The Prevention and Treatment of Abortion. By Frederick J. Taussig, A. B., M. D. St. Louis: C. V. Mosby Company. 1910. Cr. 8vo., 180 pages. Price $2.00.

The author justifies the publication of a monograph on abortion very properly by calling attention to the fact that during full fifteen years that have elapsed since T. Gaillard Thomas published his series of six lectures on the subject in book-form, in 1895, so that it has seemed to be a favorable moment to attempt a rèsumé of the present ideas regarding the cause, prevention and treatment of the premature expulsion of the human ovum.

The book before us is intended primarily for the guidance of the general practician, and the conclusions presented represent a critical consideration of the experiences of all European and American obstetricians.

The book is beautifully gotten up and well illustrated. The text is clearly and concisely written and ably presents the modern conceptions concerning this very important chapter of obstetric practice. It is well worth a careful study, offering, as it does, valuable help and assistance for many difficult conditions which confront the family physician frequently enough.

STEWART'S "COMPEND OF PHARMACY"

A Compend of Pharmacy. By F. E. Stewart, M. D., Ph. G. Eighth Edition, Revised and Enlarged. Philadelphia: P. Blakiston's Son & Co. 1910. Price $1.00 net.

This little book is based upon Prof. Joseph P. Remington's "Textbook of Pharmacy" and the eighth revision (1905) of the U. S. Pharmacopeia.

BROWN'S "SCIENTIFIC LIVING"

Scientific Living for Prolonging the Term of Human Life. The new domestic science. Cooking to simplify living and retain the life-elements in food. By Laura Nettleton Brown. 284 pages, 12mo. Cloth. The Health-Culture Company, New York. Price $1.00.

The author of this book is attempting to do missionary work in relieving women of the drudgery of housework by simplifying the general mode of living, especially as regards eating and drinking. Her principal efforts are directed toward a simpler preparation of food, and she claims that a great many of our common foodstuffs are injured and made injurious by cooking. Not that she insists absolutely upon the exclusive use of uncooked food, but rather upon greater care in the cooking.

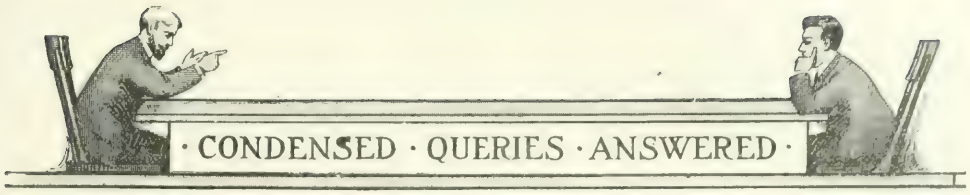
We fully agree with the author in some of her contentions. For instance, she says that all classes of people as a rule eat and drink too much—that more disease and death result from intemperate eating and drinking than from starvation. A few combinations of food to be enjoyed freely, or with good judgment, serve a better purpose and afford greater enjoyment than a great variety that can only be tasted or excessively indulged. We even agree with her that it is foolish to spend time and energy cooking kinds of food that are better and more useful raw. But when the author suggests to lighten the housewife's burden by obliging every person at table to wash his own plate and other table ware before rising, leaving the table ready for the next meal, we know of some housewives who would go into "conniptions" at such goings-on.

Nevertheless there is a good deal of sound common sense in what we are told, and the assertion of the author that women as a rule make needlessly drudges of themselves and that they, by proper regulation and simplification of their work, would be stronger and healthier and would enjoy life more has undoubtedly a true foundation in fact. The book is pleasing reading in many ways, and certainly useful; the few points in which readers are apt to differ with the author do not detract from its value.

JOSEPH'S "COSMETICS"

A Short Handbook of Cosmetics. By Dr. Max Joseph. Third Edition. Authorized English Translation. New York: E. B. Treat & Co. 1910. Price $1.00.

A useful little handbook on the hygiene of skin and hair, and the treatment of their minor affections.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5585.—E. F. H., Clarendon, Texas, writes: "Please permit me to offer a suggestion in regard to the Oklahoma dirt-eating boy. Begin at 6 p. m., allowing no supper. Give 2 ounces epsom salt, and no breakfast or dinner the next day; another 2 ounces epsom salt at 6 a. m. Give 10 grains thymol at 7 a. m., then 10 grains more every hour until six or eight doses are given. One hour after the last dose give 2 ounces of epsom salt. Strain the feces through cheese-cloth and look for hookworms. Repeat this treatment every eight days until no uncinariæ are found. Allow a supper of coffee (without cream), eggs and toast after the last laxative saline acts. I have seen more than fifty 'dirt-eaters' and every one was a victim of hookworms. Castor oil must not be substituted for the 'salts' as the oil would dissolve the thymol and cause its absorption, which in these large doses would poison the patient. Between treatments of thymol, give hydrastin, 1-6 grain, and strychnine arsenate, 1-134 grain, before meals, with a saline laxative as needed."

We do not believe that uncinariasis is present in this case. This is simply a case of pica. Had the presence of hookworms been suspected we should naturally have prescribed thymol. In our opinion 5 grains of thymol with 10 grains of the sulphocarbolates proves as efficient as 10 or 15 grains of thymol, but naturally in ordinary cases of pica, without hookworm infection, thymol would not be indicated.

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ANSWER TO QUERY 5562.—"Lobelia Hypodermically." I wish to say to G. W. B. of Maryland, that there is a preparation of lobelia that will not "set the patient crazy" when injected hypodermically. It is called hypodermic lobelia, and is prepared by Lloyd Brothers of Cincinnati. I have been using this preparation for the past year, have injected 30 minims in the arm of a child of three years to check convulsions and without any irritation following. I am now using it in a case of pregnancy attended with "cramping" and threatening abortion. Have injected from 15 to 30 minims every day for the past two weeks with the result that the cramping has practically ceased, and yet the arms are not in the least sore from the injections. There is no more pain following its use than there is in the case (in same quantity) of any other medicine.

NAT. L. JOHNSON.

Elmer, Mo.

—

ANSWER TO QUERY 5606.—"Muscular Cramps." Dr. A. E. Ewing, Youngstown, Pa., writes as follows: "Have C. F. H. of Texas, 'Query 5606,' try copper arsenite, 1-100 grain every three or four hours, for those muscular cramps."

QUERIES

QUERY 5617.—"Treatment for Gasolin Poisoning." J. C. F., Michigan, recently lost a two-year old child from gasolin poisoning and asks us to outline the best procedure in such an emergency. The child swallowed only a few drams of the fluid, but died in half an hour.

Considering the free use of petroleum-benzin at the present time it is unfortunate that even the more modern works on toxicology fail to discuss the subject of poisoning by this agent. In large cities gasolin is not infrequently imbibed for its intoxicating effect, profound insensibility or violent and persistent mania often following its use. More or less tolerance seems to be established, however, and individuals have been known to consume as much as four ounces of gasolin with no more serious result than a few hours' intoxication and a subsequent headache. But, also, two sailors, during the blockade of Santiago, drank a pint of gasolin secured from a launch; one of whom died within twelve hours, while the other became violently insane.

The symptoms of poisoning from gasolin, benzin or naphtha are vomiting, burning and pain in the stomach, stupor, and circulatory collapse. Prompt treatment is essential, especially when the victim is a child, a very small amount of the article sufficing to produce fatal results in such cases.

Treat as follows: Evacuate the stomach and repeatedly wash out the viscus with pint-quantities of warm milk. A full dose of apomorphine may be given if the patient is seen before collapse occurs. In the latter stage give caffeine and strychnine hypodermically, and after thoroughly emptying and rinsing the stomach, administer copious draughts of black coffee. This may be given through the tube if the patient is unconscious. After two or three hours, the physician having satisfied himself that none of the poison remains in the stomach, it is well to exhibit a quart of some demulcent decoction, flaxseed or slippery-elm bark serving excellently.

The patient should be watched for at least twelve hours. Food for two or three days should consist of milk and barley water. The bowels should be moved with castor oil. Individuals seemingly dead have recovered after the persistent use of the pump and maintained artificial respiration.

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QUERY 5618.—"A Short-Lived Typhoid-Fever Attack." B. E. M., Pennsylvania, reports a case recently treated by him and asks if we agree with his diagnosis of "typhoid fever." The short course of the disease somewhat puzzled the doctor.

"Mrs. R. S., aged 20 years. I was called on the 26th and learned that for two weeks she had been 'feeling miserable,' losing strength, constant headache, general malaise; for about a week she had had a diarrhea, watery and offensive, with a general tenderness over the abdomen. Felt as if she had a fever for several days, but did not take temperature.

"Evening temperature on this date 103.2° F.; pulse 122; respiration 22. Face flushed and pupils contracted. Tip of the tongue red, posterior part covered with a thick white fur. Abdomen distended with gas and tender on palpation, especially in the right side; gurgling also detected in iliac fossa. Diarrhea, stools thin, offensive (the typical typhoid odor), and light-yellow in color. Rose-colored spots on abdomen. Spleen slightly enlarged. Slight bronchial catarrh.

"I diagnosed 'typhoid fever' and started the following treatment: One 'trinity' every half hour, calomel in divided doses followed by a laxative saline draught, and the sulphocarbolates, 20 grains, every two hours. No food. On the 27th the morning temperature was 102° F. Stopped the trinity. Evening temperature 103.8° F., pulse 124. A red papular rash appeared on the neck, which spread rapidly over the whole body. This rash lasted about thirty-six hours and no desquamation followed. As aconite sometimes causes an eruption I thought this rash was caused by the amount of aconitine taken.

I wish to say here that the patient at no time had any of the prodromes of measles or scarlet-fever. The stools began to take on a darker color and lose their offensiveness.

"On the 28th, morning temperature 100.8° F.; pulse 114. Evening temperature 101.6° F.; pulse 110. Stools today much better. Abdominal distention much less and tenderness decreasing. Rash almost gone from body, some remaining on face and neck. Twenty-ninth, morning temperature 99.8° F.; pulse 90. Evening temperature 100.2° F., pulse 92. Stools much improved. Thirtieth, morning temperature 99.4° F.; pulse 88. Evening temperature 100.5° F.; pulse 86. Has passed great quantities of gas; abdomen flat and tenderness gone. Intestinal antiseptic cut to one tablet every three hours. Thirty-first, morning temperature 99° F.; pulse 80. Evening temperature 98.4° F.; pulse 80. The temperature has been normal since then, the bowels are entirely normal and the patient says she feels like getting up. The first and second day I allowed absolutely no food; the third day I gave a little beef broth.

"I want to know if this was typhoid? There is a lot of typhoid fever in the little town at the present time. If it is, it must have been of the ambulatory type or the treatment aborted it. Which was it?"

We do not think there is the slightest question of the correctness of your diagnosis. The initial symptoms, the rose-colored spots, slightly enlarged spleen, all distinctly evidence typhoid fever. But you should not, even so, be "astonished" at the results following your medication. We have been pointing out for the last few years that yphoid fever can be controlled and it is being controlled every day. Bear in mind that prompt and positive treatment of the pathological conditions present in the individual produces remedial results nine times out of ten.

The days of treating typhoid fever with formulas handed down by "authorities" who had no conception of the body-chemistry or underlying pathology of this disorder have passed. No intelligent physician treats "typhoid," but he recognizes at his first visit the gross systemic derangements existent and proceeds to correct them. As a result, the intense toxemia and intestinal ulceration which heretofore have been regarded as inevitable never occur.

We would suggest the addition of nuclein in the next case treated. Push in full doses from the very first, and also remember that the medication which proved satisfactory here may have to be changed to meet the conditions present in other patients. Occasionally you will not get your patient until the disorder is further advanced; you will then have to push echinacea and baptisin and give high antiseptic enemata. We congratulate you heartily upon the results obtained and assure you that they are not at all unusual among positive therapeutists.

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QUERY 5619.—"Wanted, specific for Insect Stings and Snake Bites." J. G., Mexico, wishes to be informed what remedies will prove specific in scorpion stings and snake bites. The doctor says: "I must have something for pain and spasm produced by formic acid. Will not a solution of stovaine be a good local application?"

We do not believe a solution of stovaine would prove of any service whatever; it certainly could not neutralize the venom and we are not sure that local anesthesia can be secured in a case of scorpion or snake bite. There is no question in our mind that under such circumstances echinacea, locally and internally, is one of the best remedies available.

A solution of potassium permanganate, 30 grains to 4 fluid ounces of water, may be injected into and around the wound. As soon as possible after the person is bitten someone should suck the wound thoroughly and either cauterize or cut away the tissues around the puncture.

Were we in your place, and until something better develops, we should incise, inject permanganate, and then push echinacea internally and apply compresses saturated with a strong solution of the latter.

The pain resulting from scorpion bites is said to yield to the application of epsom-salt compresses, carbolated (epsom salt, one

ounce; water, one quart; carbolic acid, 10 minims), applied as hot as can be borne.

QUERY 5620.—"Excretion of Uric Acid." C. E. T., Mississippi, wants to know why, if so much uric acid exists in the blood, so little shows in the urine, when the blood goes through the kidneys and leaves traces of everything else. He asks us to "throw more light upon this subject."

You should study Purdy's "Examination of the Urine," and "Uric Acid in Causation of Disease" by Haig. "Man and His Poisons" by Abrams is another extremely interesting and instructive work, as is also the "Treatise on Gout" by Strauss. The latter is one of a set of booklets on the pathology and therapy of disorders of metabolism.

The amount of uric acid in the blood of man is not merely a matter of chance, but is subject to certain definite rules. It is safe to say that the quantity of uric acid in the blood is proportionate to the solvent power of that fluid and its contained salts for uric acid, as excess of uric acid in the blood means an excess at the same time of uric acid over urea in the urine. It must be born in mind however, that the urine voided from the bladder is a mixture of urine secreted under several definite blood conditions. Hence it is impossible for the blood and a given specimen of urine to correspond exactly.

Remember also, Doctor, that in nephritis the alterative processes existing in the kidney diminish the alkalinity of the organ, so that while the blood may contain an excessive amount of uric acid it is unable to pass the kidney into the urine. In nephritis we have a chronic retention of urates and uricacidemia without an excess of urates in the urine.

QUERY 562..—"Injection of Hemorrhoids." G. T. S., Texas, asks how the country physician may best remove hemorrhoids.

We have several times, in the past few years, strongly recommended the injection-method, pointing out clearly the effectiveness of this procedure, the absence of danger and simplicity of technic. Failures reported in the past have been due to imperfect technic or the use of a too weak or complicated solution. We have yet to see the patient who does not prefer injection to excision or the ligature.

It is quite true that all "piles" are not suitable for injection. External piles should be incised and the clot turned up. If the tumor is of any size, a stitch or even two may be used to close the incision. Few practicians care to use the knife, while the clamp and cautery is out of the question. The ligature, properly applied, is infinitely preferable to this procedure. However, considerable pain follows even the most skilful use of the ligature, and retention of urine is not infrequently noticed. You are, of course, familiar with the details of this slight operation. Occasionally pedunculated tumors present which may advantageously be tied off. Such tumors, however, in the writer's opinion, should be removed with the scissors after the ligature has been firmly tied. The mucosa, in every case, should be incised and the ligature placed exactly in the incision. If any hemorrhage follows, which is rare, the stump may be touched with pure carbolic acid.

During the past five years the writer has injected practically all internal hemorrhoids, using a strong solution of carbolic acid in olive or purified sperm oil. Three drams of carbolic acid should be added to 2 drams of oil. Be sure and use a pure crystallized phenol. Merck's or Mallinckrodt's prove thoroughly satisfactory. The oil should be warmed before injection and the syringe thoroughly sterilized in boiling water. When adding the carbolic acid to the oil, liquefy it by heat. Some operators use glycerin as a diluent, but in the writer's opinion this agent is too hygroscopic. The addition of glycerite of lead, ergot, hydrastin, tannic acid, etc., to the glycerin solution is undesirable. Unquestionably the best results follow the intelligent use of the formula mentioned first.

The practician should realize that cleanliness is of primary importance, and only enough fluid should be injected thoroughly to coagulate the contents of the tumor. The external parts should be cleansed with anti-

septic soap and then with alcohol. A 1 : 2000 solution of suprarenalin may be used.

The deep ulceration which has been complained of by some operators is never present unless the fluid has been injected into the bowel-wall. There is no excuse for such an "accident," and if the technic outlined herewith is followed closely, the tumor will drop off without suppuration or any marked inflammatory symptoms occurring. It is hardly necessary to point out the necessity of thoroughly opening the bowels a day or two prior to operation.

If you desire to familiarize yourself with the technic of various operators you cannot do better than to study the chapters on the injection-treatment of hemorrhoids in "General Practice as a Specialty." The writer's method is here outlined in full.

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QUERY 5622. "Dosage of Cannabin." J. E. C., New York, notes that we no longer recommend "cannabin, gr. 1-67," and that the 1-6 grain granule—eleven times the strength—is advised. The doctor regrets this, as he has had good results from the small dose and thinks it looks like "going back on the principles of 'small dose often repeated'."

We have for many years experimented extensively with cannabis and its various derivatives. Cannabin, as a matter of fact, has to be given in comparatively large doses to secure effect. From 8 to 15 grains is recommended by most clinicians. You can, therefore, see that 1-67 of a grain is almost too minute a dose. The standard granules, Doctor, are supposed to represent (and as a rule do) "the smallest known-to-be-effective dose for an adult." It would not be correct to say that the 1-67 grain granule of cannabin is an effective dose for an adult, whereas the 1-6 grain has proven by careful experimentation the approximate quantity usually required to meet the conditions.

We are not, by any means, getting away from the principle of the small dose often repeated, but we are very much opposed to infinitesimal and ineffective dosage. Even 1-6 grain of cannabin must be repeated frequently in order to secure the cannabis effect, and this very valuable drug has been more or less relegated to oblivion simply because physicians failed to secure results from the smaller doses. Even larger doses—1-3 to 2-3 grain—may be required when prompt effect is desired.

Cannabin is the standard product and you may rest assured of its efficacy. Most of the cannabis derivatives offered are practically inert.

We trust you will familiarize yourself with larger dosage, and we feel sure that sooner or later you will support us in our position and heartily commend the change.

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QUERY 5623.—"Dosage of the Arsenates and Nuclein." A. B., Massachusetts, presents this question: "With an adult able to be up and attending to business fairly well, how many days should the three arsenates with nuclein be continued (if apparently needed), in a moderate dosage of, say, six tablets per day? When stopping, on account of nuclein-effect, may strychnine, gr. 1-134, be continued, six or eight doses per day, until nuclein medication can again be undertaken? How long should this interval be before resuming the arsenates with nuclein?"

Large doses of nuclein, given at frequent intervals, produce leukocytosis within a few days. Small doses, especially when given with the triple arsenates, produce leukocytosis very slowly, acting as a general reconstructant tonic. The triple arsenates with nuclein are intended for prolonged exhibition, one or two tablets three times daily until the desired results are secured or the patient shows signs of arsenic or strychnine sufficiency. The latter phenomenon rarely occurs. The triple arsenates with nuclein have been continued for months, with the most beneficial results, the conditions present in the individual naturally governing medication. One patient will require the triple arsenates three times daily for a month only, while another may tolerate the same medication for half a year.

The nuclein effect, i. e. leukocytosis, will hardly be secured with the triple arsenates and nuclein. This is a reconstructant tonic, and where the direct effect of nuclein upon

the blood is desired a solution should be given hypodermically, or in large doses per mouth twice or three times daily. Strychnine may be continued if nuclein is stopped, but as already pointed out, the compound of the arsenates with nuclein may be given practically indefinitely wherever indicated.

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QUERY 5624.—"Wanted: A Cure for the 'Fidgets'." C. F. C., Mississippi, desires to know "what is good for a pregnant woman with a nervous affection in the calf of the lower extremities, which the 'old women' call fidgets?"

It is a little difficult, Doctor, for us to prescribe for such a vague disorder as the "fidgets" in the calf of the leg of a pregnant woman. In the first place, such conditions are very frequent and are due generally to retention of waste or to pressure. The woman may with advantage wear a snugly fitted abdominal belt and the limb should be massaged daily for several minutes. Frequently a short rest in the prone position or with the feet elevated slightly puts a stop to the condition. Examine the urine and maintain elimination. Don't forget to impress upon the woman the necessity for keeping the skin thoroughly active with salt or epsom-salt sponge-baths.

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QUERY 5625.—"A Case of Deficient Mentality." H. Z. F., North Dakota, desires advice as to treatment of a patient (boy) aged 18 years who has always been backward in actions and studies. "He was apparently normal at birth; very bright. When about one month old he was sick with some minor trouble, a physician was called, who left some medicine. The child seemed to grow worse under treatment, and the doctor first called being out of town, another was called in, who pronounced the medicine altogether too strong for one so young and that it was poisoning the child. He left other medicine and the child recovered, but it was noticed, not long after, to have a vacant, expressionless look. This went on for possibly three years when he had convulsions, three or four during the year for two years, and none since.

"He went to school regularly until two years ago, but being backward, could not keep up in his studies. He is a good reader and has excellent memory along certain lines (remembers vividly what he would better forget), but in arithmetic is unable to grasp or to have any idea of numbers. He has been taken to several physicians, but apparently they did not know what to do for him. Has been considered one of the number of backward, undeveloped-mentality boys. The boy is decidedly nervous, will work himself into a fit over something he does not want to do; is a great lover of music although he will not attempt to learn to play; great for machinery. He is 5 feet 4 inches tall and weighs about 125 pounds. Is as smart-looking as any boy, but backward in his actions.

"Have read the article in the May CLINIC (pp. 280 to 283), also what Dr. Shaller writes, in his "Guide to Alkaloidal Medication," about the use of thyroid extract in similar cases. Do you think it advisable to use that in this instance?"

It is impossible to offer intelligent advice with our limited knowledge of conditions. We have not only to consider physical but temperamental abnormalities in this instance. What is the family history? Any specific taint; any possibility of discovering the character of the "minor trouble" or the "too strong medicine?" How long did the second doctor treat the child? What were the conditions (beyond somewhat vacant face) during the period from one to three years? Any accident, abnormal appetites, diseases? What was the character of the convulsions? Any cause known? Worms ever discovered, or adenoids? What do you mean by the statement, "he remembers vividly what he would better forget?"—unpleasant or undesirable subjects? Can he memorize poems or long articles? Does he smoke cigarettes or indulge in unnatural practices? Any cranial abnormality? What about reflexes? Suppose you make a thorough physical examination, Doctor, paying especial attention to the prepuce, nares, upper respiratory tract and eyes. What are the evidences of thyroid insufficiency, barring the limited mentality?

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Experience

THERE is a comforting proverb which tells us that if a man never has been a fool, he never will be wise. This does not mean that we should do foolish things in order to learn wisdom. What it does mean is, that we should improve the future by means of our past experience. We should profit by our blunders and mistakes, and the broader the range of our digested experience, the sounder will be our judgment.

Medical knowledge is not all acquired in a medical college, but is made up of little bits of information, little observations picked up in the course of daily bedside experience; the proper sources of knowledge are not books, but life, experience, personal thinking, feeling, and acting. It is not the quantity of knowledge a doctor acquires from books but the useful lessons learned from past failures and successes—from a rich experience—that is of consequence.

The experience gained from books, though of immense value, is but of the nature of learning; whereas the experience gained from practice is of the nature of wisdom, and a store of clinical experience is worth more than a stock of theory.

Practical wisdom is only to be learned in the school of experience. The doctor made wise by experience is better able to judge correctly of the things which come under his observation. One's knowledge, in fact, cannot go beyond his experience, and the oft-repeated experience of a trustworthy physician regarding the treatment of disease may be taken for knowledge.

We progress only through experience by bringing forward from yesterday the good of yesterday, and adding it to the store of the good of today. True

progress is improvement, not movement, merely. Its measure is not the ground passed over, but what has been gained from our own experience and from our association with persons wiser, better and more experienced than ourselves.

The act of seizing every bit of knowledge, every scrap of information, no matter how insignificant it may seem at the time, the laying hold of every opportunity and every occasion, and grinding them all up into experience, cannot be overestimated. A wide experience will do this for you: it will teach you to be forbearant toward those who differ from you, provided they observe patiently, think honestly, and utter their convictions freely and truthfully.

So get experience every time an opportunity presents itself.

The results of experience are, of course, only to be achieved by living; and living is a question of time.

Ketch yer grip an' hang a-hold! Don't you stop to grumble.
Be a man an' hold yer head right up in the air.
You ain't never down, you know, until you take a tumble,
Even then there's no excuse for you're lyin' there.
Bounce right on your feet again with determination.
Never be disheatrened if you take some little falls;
'Tisn't time just yet, you know, fer your extermination—
Don't be a dead one till the undertaker calls.

MY CREED

Do not keep the alabaster boxes of your love and tenderness sealed up until your friends are dead. Fill their lives with sweetness. Speak approving, cheering words while their ears can hear them, and while their hearts can be thrilled and made happier by them; the kind things you mean to say when they are gone, say before they go. The flowers you mean to send for their coffins, send to brighten and sweeten their homes before they leave them.

If my friends have alabaster boxes laid away, full of fragrant perfumes of sympathy and affection, which they intended to break over my dead body, I would rather they would bring them out in my weary and troubled hours and open them, that I may be refreshed and cheered by them while I need them. I would rather have a plain coffin without a flower, a funeral without an eulogy, than a life without the sweetness of love and sympathy.

Let us learn to anoint our friends beforehand for their burial. Postmortem kindness does not cheer the troubled spirit. Flowers on the coffin cast no fragrance backward over life's weary way.

I present you herewith my ideas, my beliefs, my experience, in the things that bring you success as a doctor. I am going here to have my say, without a "provided," an "if" or a "but." I shall make no provisions for a retreat but come out in the open and give you all I have to offer. I expect criticism and want it. If I am wrong in any particular I want to know it far more than any of you may want to tell me. I can not afford to be wrong with many thousands of physicians reading my words and putting into actual use my suggestions for the benefit or otherwise of the sick and dying. It is my duty to speak plainly and squarely to the point; it is yours to aid, support, correct, combat, extend my work as the truth teaches you.

Here I shall present my best suggestions as to the bettering of your work with the sick, your position in the community and your prosperity as men, and your qualifications as physicians. You will find the active principles prominent in my writings, not because I am specially advocating these remedies and the methods they make possible, but because they are better than any others. If anything still better offers, I shall drop the alkaloids and turn to the better. There isn't anything apparent above the horizon yet!

This is essentially a shirt-sleeve work—coats and dignities chucked, the polite amenities and the Johnsonian sesquipedalities dropped. You and I are sitting in our little back office, talking over our affairs the way they are and not as we show them to the public eye. We are not on parade. We haven't collar, cuffs, even shoes on, and our shirt is open at the neck. We are getting at the facts of the case. "We have tried out the opsonins and got no benefits; but from the local hyperemia method we got good results," says a friend—but he says it here and will not put it in print, for that requires a tedious process of reading, investigation, accurate experimentation, and a prolonged period of time. Very good things these, but—do *you* find time for such things?

We can't always wait for this when we have a thing too good to keep back, and above all this want the verdict from thousands of clinical observers who are worth more than

any single laboratory worker or any number of them.

GROSS DRUGS VS. ACTIVE PRINCIPLES

Under the above heading there is a very sensible editorial in *The New York Medical Journal*. It is a significant one, too, for though the writer adheres to the ancient form of drugs in the main, his argument is presented in a dispassionate, sensible manner which must commend itself to all readers. This is especially notable, since the editor of that journal is a man noted for his conservatism. The journal is one of the few medical periodicals which still adheres to the use of diphthongs, and this little matter is a certain index as to the mental characteristics of the editor. Dr. Foster says "the time is yet far distant when we can depend upon active principles alone for the curative treatment of disease." In this we heartily agree with him. In fact we do not believe the time will ever come when we can depend on active principles alone.

In advocating crude drugs, he brings up, as a matter of course, rhubarb and ergot, of which as yet the exact active principles have not been isolated, or at least no single active principle has been isolated which presents all of the virtues of either of these valuable drugs. We are surprised that he omitted mention of cannabis, the third standby of the conservatives. Still more are we surprised that he includes ipecacuanha, nux vomica and cinchona. The isolation of the active principles from these three plants and their use singly has afforded such nice discrimination in their adaptation to the desired objects, that we can only infer that the writer has not paid much attention to the reports on these remedies. He follows the usual custom of refusing to admit that any one of the glucosides of digitalis as yet isolated fills the place of the crude plant. In this we know he is mistaken; but so few Americans have employed the Germanic digitalin outside of the alkaloidal group, that we rather expect to hear such a view expressed.

Altogether the editorial is a notable example of the steady gravitation of professional sentiment toward the active principles. At first there was nothing too mean to be said of them, but this opposition is moderating and something like a fair discussion of their merits may be noted. The result is not doubtful—really the parties now consist of those who admit that the alkaloids will come and those who assert that they have already come.

Mark this which I am going to say, for it is as good as a working professional man's advice, and costs you nothing: It is better to lose a pint of blood from your veins than to have a nerve tapped. Nobody measures your nervous force as it runs away, nor bandages your brain and marrow after the operation.—Oliver Wendell Holmes.

HAS EHRLICH FOUND A CURE FOR SYPHILIS?

What promises to be the greatest discovery in medicinal therapeutics since the introduction of quinine has recently been made by Professor Ehrlich, director of the Royal Therapeutic Institute, Frankfort, the well-known author of the side-chain theory of immunity. For several years Ehrlich has been endeavoring to find remedies which will strike at the specific causes of infectious diseases, by destroying the microorganisms outright and rendering the body "sterile," so far as these bodies are concerned. This work has been carried out along strictly scientific lines, so that the "discovery" just announced is in no sense empirical but rather a constructive one, being the apparent solution of a carefully set problem.

This new syphilis remedy is the joint work of Ehrlich and his Japanese assistant, Hata. It is an arsenic preparation, somewhat similar in its nature to atoxyl, but said to be free from the poisonous and sometimes dangerous after-effects of that substance. Chemically it is dioxydiamidoarsenobenzol. Thus far it is known simply by its laboratory number as "606." It has not yet been placed on the market, and probably will not be until the number of cases treated experimentally in the German hospitals and clinics is sufficiently large to supply data essential for its in-

telligent use. Wechselmann has already treated 2500 cases.

The clinical work with the new remedy was placed by Ehrlich in charge of Professor Wechselmann of Berlin, who made his first report at the meeting of the Berlin Medical Society (Berliner Medicinische Gesellschaft) on June 22 last. The results reported by him and other investigators, leaders in the German medical world like Michaelis, Alt, Schreiber and Neisser, are startling to say the least. No wonder, as *The British Medical Journal* says, that at the conclusion of the reading of his paper "a storm of such genuine and long-continued applause broke forth as has hardly ever been heard in this matter-of-fact and skeptical society."

Apparently "606" *cures* syphilis, and not after a prolonged course of treatment, as with mercury, but *at a single injection.* Within twenty-four to forty-eight hours improvement is usually noticeable in the earlier stages; within ten to fourteen days the patient is apparently cured, as shown by the disappearance of the spirochetæ, the specific cause, from the body of the patient, and by the fact that the Wassermann reaction becomes negative. In all cases this reaction is resorted to before treatment is begun, to verify the diagnosis.

No. 606 has been used in all stages of the disease, from the simple chancre to the most virulent forms of malignant syphilis; in the ordinary syphiloderm and in advanced brain lesions. It seems to be effective in all, though naturally more rapidly so in the earlier stages of this protean affection. The German investigators report case after case of the most severe forms of the disease which have yielded almost magically to this agent—many of them cases in which the classical methods had been tried and found entirely wanting.

The remedy is given both by intramuscular and intravenous injection. The intramuscular injection is generally painful, sometimes severely so, the pain persisting anywhere from several hours to several days. Recently the mode of preparation has been changed somewhat, so as to obviate some of the discomfort. When used intravenously the remedy is painless. The dose used varies from 0.2 to 0.7 Gram (3 to 10 grains).

The percentage of immediate successes reported varies from 40 to 100. The opinion seems to prevail that the few failures were due to insufficient dosage. Usually where the first injection was not followed by a negative Wassermann, this was obtained following a subsequent injection. The fact seems established that given in sufficient dosage there is at least a temporary cure of the disease, and if the spirochete is actually destroyed, as seems to be the case, the cure should be a permanent one.

The remedy has been in use only about four months, so it is too early to assert that permanent cures are effected by it, but there is certainly excellent ground for believing that this is the case. Certain it is, however, that a single injection of "606" will do more for a syphilis patient than months of treatment with mercury.

The sociologic importance of Erhlich's discovery is almost beyond computation. It brings to the foreground the possibility of absolutely wiping out the "black plague" of syphilis, the father of infection, the ancestor of physical degeneracy, the scourge of new races, the destroyer of old civilizations. Quinine opened the tropics to the conquest of the white man; "606" may have even greater conquests before it.

The burro when he sings may be quite as happy as the lark, but the general effect is quite different.
—Charles Eugene Banks.

THE ETIOLOGY OF PELLAGRA

Dr. L. W. Sambon, lecturer at the London School of Tropical Diseases and the Royal Institute of Public Health, London, at present investigating pellagra in Italy, announces from Rome the theory that pellagra is caused by the bite of a species of midge, or black fly, the simulium pipens, and that it thus falls into the class of tropical or semitropical diseases of insect conveyance.

If this announcement is verified, it affords a possible explanation of the sudden occurrence of pellagra in our own country, or at least its more general recognition in recent

years. It has been assumed by some students of the recent outbreaks that cases had existed unrecognized for a number of years, for instance in the asylum population of the corn-raising districts. This may be true, but it is hard to see how so marked a disorder could have passed unnoticed, at least in its typical form, for any length of time.

Dr. Sambon's announcement opens up a new field for American investigators of the subject. It is particularly important in view of the fact that in a number of cases reported in this country the connection of the disease with a corn-diet could not be established. We shall print a full description of the fly as soon as it may be available.

We are all trying to build concrete foundations under our air-castles.—David Gibson.

LAY TEACHING CONCERNING DISEASE

In glancing through our lay exchanges I have just come upon an article, in *Physical Culture*, on "Diphtheria, Its Causes and Its Remedies," written by Bernarr Macfadden. The following paragraphs immediately attracted my attention:

Do not encourage the child to stay in bed. The idea that the child must remain in bed simply because there has been a diagnosis of diphtheria in its case is a terrible mistake. In previous articles I have called attention to the harm that is done by impressing children with the seriousness of their complaint. It is far better to follow the opposite plan. No matter how serious the child's condition may be, he should be made to think lightly of it. The child should not be kept in bed with diphtheria unless there is a desire on its part to remain in bed. It should be encouraged to be up and around. And as for draughts, the patient should actually sleep in a draught, so far as possible. The oxygen of the outdoor air will very materially benefit this complaint. In fact, the outdoor treatment, in connection with the other treatments that are advocated here, would be of very great advantage.

Remember that drugs are of not the slightest use, and that antitoxin is dangerous, and is not in any case necessary; that diphtheria is not a dangerous disease unless it is made so by the method of treatment that is employed; that as a rule the severe symptoms of the complaint will disappear in a few days if you treat it in accordance with common-sense methods.

This man is wofully, disgracefully, damnably ignorant—and yet he presumes to give instruction to the people on the treatment of that dread disease, diphtheria. It is quite evident that he knows absolutely nothing about it; in all probability he has never seen a single case. If he had, how could he write of it in this light way, and with such complacent cocksureness, the indelible pock-mark of the fool.

I presume there is hardly a physician who reads these words who could not tell of one case (yes, some of a score or more of cases) of *mild* diphtheria, that were treated as simple sore throats, by the folks at home, on exactly the same lines so confidently recommended by Macfadden, and in which they were called in just a little too late; the patient was "getting well, aye, was well"—but was permitted to sit up or to play around the house. Then came the sudden attack of heart failure—utterly unexpected—and sudden death. "The doctor came too late to be of any service."

In no acute disease is the likelihood of heart complications greater, or absolute rest in bed during the attack, as well as during convalescence, more imperative. In none can the physician feel more certainty of saving life if he is given an even chance in the race with death.

Would to God that these grossly and cruelly ignorant quacks—for they are nothing else—could be forced to sit by the bedsides of the victims of their teaching, so that they could appreciate to the uttermost its full significance.

DRUGGISTS—A REFRESHING CONTRAST

Standing in refreshing contrast with the resolutions proposed by *Notes* for the action of the Association of Retail Druggists at its Pittsburg meeting, the middle of September, to which we have alluded in preceding issues of CLINICAL MEDICINE, are the resolutions adopted by the American Pharmaceutical Association, at its last meeting, in Richmond. These are as follows:

RESOLVED, That we recommend that any movement for the reform of medical practice be allowed to originate and proceed within the medical profession.

FURTHER, That we are opposed to any attempt on the part of the pharmacal press to dictate or compel any such reform, believing as we do that

the medical profession is qualified to institute and carry out its own necessary reforms.

The American Pharmaceutical Association is an old, honorable and efficient organization, which for years has been endeavoring to raise the professional and scientific standing of our pharmacist brethren. This body has fought for and secured the enactment of proper laws governing the practice of pharmacy; it has brought about a higher standard of pharmaceutical education; it has encouraged research of a high order. In a word, it has stood and still stands for all that is best in pharmacy. The members of this Association are generally cultured gentlemen who have the respect and confidence of physicians, and deservedly so, because of their professional abilities.

Compare this broad-minded and tolerant attitude with that of the N. A. R. D.—or rather with the attitude of its management, for we do not believe that it reflects the feeling of retail pharmacists generally, or at least the best element of the retail drug trade. Read the following, clipped from the Pre-Convention number of *N. A. R. D. Notes:*

MEDICAL SELF-DISPENSING MUST GO

Keep your eye on Pittsburg. This is the year and Pittsburg is the place where the evil of medical self-dispensing is going to get a blow between the eyes that will make it reel and from which it will never recover.

Propaganda has educated both the physician and pharmacist to a realizing sense of the injustice of the jughandled legal situation which compels the pharmacist by law to refrain from diagnosing and prescribing and does not prohibit compounding and dispensing by physicians. Common sense and common justice as between doctor and druggist demands that the law shall place restrictions around the physician that will be as effective in keeping him to his own field as those which the law now places around the pharmacist in keeping him out of the physician's field, or, failing to do this, to repeal the restrictive laws we now have applying to the pharmacist.

Note the veiled threat in the last sentence. Although this is qualified by a comment upon the impossibility of moving back the hand on the dial of time, the threat is there. Compare, I say, this position with that taken by the American Pharmaceutical Association, and do not forget that the N. A. R. D. has at least a moral alliance with the American Druggists Syndicate, which openly confesses to stealing physicians' prescriptions to be made over into nostrums to be sold to the laity, and has entered into an alliance, through its president and editor, with the Christian scientists, the antivaccinationists, the osteopathists, the antivivisectionists, and prominent representatives and defenders of quackery, in the socalled National League for Medical Freedom.

The American Pharmaceutical Association stands openly and boldly on the side of the medical profession. It recognizes the fact that the interests of the two professions can only be made one through the high quality of the service which each renders to mankind.

The National Association of Retail Druggists has aligned itself with the patent-medicine interests, with irregulars of all kinds, with the religiomedical sects, with quackery—and now it threatens the medical profession.

The great question of the hour is the canal question.
Panama?
No, alimentary; how to keep traffic passing through it—at present food prices.—Bulletin of Pharmacy.

PHYSOSTIGMINE AFTER ABDOMINAL OPERATIONS

Brooks H. Wells, in *The American Journal of Obstetrics*, states that after abdominal sections, before the patient is taken off the table, she is given a hypodermic of physostigmine salicylate, gr. 1-40, and atropine sulphate, gr. 1-120. This is found to have a very positive effect in relieving postoperative pain and nausea, in promoting intestinal peristalsis, and in preventing shock. To get the best effect it should be given before the patient is taken from the operating room. When it is used, morphine is seldom needed for the control of pain. The dose of physostigmine is seldom repeated and should not be given more than twice more, at four- to six-hour intervals, in doses of 1-60 grain.

In using this drug it should be remembered that it is easy to give an overdose and paralyze the intestinal coats by overstimulation and so do serious harm. It should also be remembered that in actual obstruction it is

dangerous. Given in the doses mentioned, with the precautions noted, he has never seen any ill effects, and the testimony of the house-staff is unanimous that the patients to whom it is given suffer less, have less nausea and less abdominal distention than others. Patients usually pass from anesthesia into quiet for several hours. If then they are restless, 1-8 grain of morphine usually suffices. When the stomach will easily retain it, sleep and freedom from pain is often thus secured by giving in place of morphine 8 grains of aspirin with 5 grains of veronal.

I hold every man a debtor to his profession; from the which, as men, of course, do seek to receive countenance and profit, so ought of duty to endeavor themselves by way of amends to be a help and ornament thereunto.

—Francis Bacon.

LOOK AFTER THE UNIT—THE INDIVIDUAL DOCTOR

A St. Louis reader of CLINICAL MEDICINE has brought vividly to our attention Dr. James H. Farber's article in *The Lancet-Clinic*, entitled "Practical Thoughts." While we always scan the pages of our live Cincinnati colleague, we might have missed the milk of the coconut in this strong article without that reminder, since the title does not quite suggest its central idea, which is, the importance of stimulating our organizations to a recognition of the duty that they owe to their individual units, to each and every physician. As Dr. Farber says: "If there is or has been a profession where every man is for himself 'and the devil take the hindmost,' the medical profession is that one." This is so true that it needs no discussion; and so is that other statement of Dr. Farber, that "organization has long been a necessity for any great purpose, and organization for the personal needs and welfare of its units is the acme of common sense."

We shall not attempt to present an analysis of the doctor's paper, one which deserves careful reading by every physician interested in the economics of the profession, and that should mean every one. To be frank, however, we believe some of Dr. Farber's proposed remedies impracticable, as for instance his suggestion of a chain of medical colleges to be owned by the profession itself. Nevertheless his premises are sound.

Through our national organization we have been seeking to do good to practically everybody *except the doctor*. The multiplied efforts to prevent disease or to stamp it out, to raise the standard of admission to the profession, to improve the character of our colleges, to secure better drugs and other agents for the cure of disease, and to extend the facilities for cure open to the sick poor, are all praiseworthy and desirable—but *what is being done for the doctor?* That, as a class, he is getting poorer no one can deny. He is subjected to abuse and misrepresentation, not only in the growing horde of vile sheets which fatten on the lies that they can concoct about doctors or an imaginary "medical trust," but also even in the newspaper press, which is always ready with innuendos. The doctor is being robbed on every side. Even our friends the druggists (they should be our friends—and I believe they mean to be) want to get their hands on the doctor's flattened pocketbook.

It is high time for the American Medical Association to begin a new campaign, one directly and unequivocally in the interest of the rank and file of the profession.

Let it come into the open and fight the men who are fighting the doctor. Let it give blow for blow, and meet falsehood with truth.

If an attack is made upon our purse, let it make the reprisal of stalwart manhood.

Let it combat with all its undoubted power the constant threats of unfriendly and repressive legislation. Let it secure the support of the courts to protect our rights.

Let it fight against the extension of charity practice, and demand from the municipality or the state proper remuneration for work done for those unable to pay.

Let it continue its excellent work for higher medical standards, and strive to curtail the overcrowding of the profession.

Let it secure uniformity in practice-laws, so as to provide for equality of opportunity between doctor and doctor.

Let it begin a campaign of publicity regarding the medical profession, designed to rehabilitate it in the hearts of the people.

A campaign of this kind, conducted along broad, generous, mutually helpful lines, would do more than anything else to bring the entire profession together, and to make it a fighting force for the common good.

Is the goal distant, and troubled the road,
And the way long?
And heavy your load?
Then gird up your courage, and say, "I'm strong",
And keep going.
—Ella Wheeler Wilcox.

PIONEERS AND THEIR WORK

Here and there in the outskirts of the great city we come across places where some adventurous builder has begun the construction of a tenement. The cellar has been excavated, perhaps the basement erected, and then the work has stopped. The builder's money ran short, or he became doubtful on the prospect and called off his men. Time passes; the half-built walls crumble or are carried off, weeds cover the unsightly heaps, until in the course of time the city grows out to and over the locality, and the edifice is completed or rebuilt.

Science has many such monuments of the enterprise of individuals that has outrun their means and discretion. Many an adventurer has left his bones to be buried in the wilderness, to be unearthed years later, when the pick of the railway builder demolishes the moldering remnants of the edifice into which his hopes were built.

In no department of human endeavor do we find more examples than in medicine. The doctor is essentially conservative. He is not of this pioneer breed, but of that which sits tight in his father's halls, and lets the other fellow go out into the wilderness to encounter savage men and still more savage nature. He is content with security and will not risk a little for the chance of winning much. Such men, in primeval days, objected to wearing clothes, as an indication of degeneracy, and told the story of Eden to illustrate their protest. They looked with lofty contempt on the churl who forsook the free range of the desert and settled down to till the soil, and the tale of Cain and Abel voiced their prejudice. They formed a part of that stubborn Matter which the gnostics constituted the principle of Evil, and with which the emanations from the God united to create this world of mixed good and ill. They yet constitute the too often impenetrable obscurity which will not be pierced by the light, the insuperable obstacle which will not be overcome by the man who seeks to bring down the celestial fire to comfort his fellowmen.

Cullen urged his brethren to administer remedies singly, that their effects might be more accurately estimated; but his words fell on unheeding ears. Every great clinical therapeutist since has urged the same course, but only the greatest appreciated the importance of the matter. Trousseau gave strychnine alone in epilepsy, pushing the doses to effect—and obtained results which the masses utilized by adding a little nux vomica to their prescriptions. Niemeyer even drew the line between the applications of the infusion and the tincture of digitalis, foreshadowing the coming era of single active principles, as he did that of the tubercle bacillus; but his shrewd observations are forgotten. Weir Mitchell demonstrated the curative power of the *exclusive* milk diet in nephritis, and every textbook today advises that milk enter largely into the diet.

To obtain definite results the students of experimental therapeutics were compelled to discard the cruder preparations and employ the single active principles in chemical purity, and then they used the data to direct the application of the old crudities. It never seemed to occur to them that certainty, precision, might be of value in direct remedies for treating the sick human as well as in experimenting upon dogs and coneys.

Da Costa was not only a master of diagnosis but an accomplished therapeutist, and he made many applications of pure active principles administered singly. The specialist, in treating diseases of the eye, uses the active principles singly, almost exclusively, and yet even he is liable to desert atropine for belladonna, strychnine for nux,

when he seeks to treat the rest of his patient's economy. This is somewhat because he does not know the rest of the body and its diseases as accurately as he does the eye, but mainly because of no better reason than habit.

The modern surgeon is strictly a single-remedy and active-principle man. What few drugs he employs are directed for clearly comprehended needs. He gives quinine, strychnine, morphine, physostigmine, and atropine for septic fever, adynamia, pain and insomnia, intestinal torpor or hemorrhage. He takes no chances on uncertain crudities; he knows what he wants too clearly to employ shotgun mixtures. So far as he goes his therapeutics is admirable, but he does not go near as far as he might. He has not yet realized the control exerted over erysipelas by pilocarpine, over suppuration and infection by the sulphides, over fever by aconitine and veratrine, over spinal irritability by cicutine, or a hundred equally positive applications of drugs to control disordered functions. But so far as he goes his therapeutics is much better in quality than that of the average internist.

EXCELLENT RESOLUTIONS

Following are some resolutions passed by the Philadelphia Association of Retail Druggists, which has begun a much-needed campaign against the traffic in habit-forming nostrums.

WE, Members of the Philadelphia Association of Retail Druggists, realizing the danger to public health by the indiscriminate sale by us of habit-forming drugs, when present in proprietary or patent medicines, especially that class of prepared ones included under the "soothing sirups" and "comforters" designed for the use of infants; also appreciating the earnest efforts of the director of the department of public health and charities of Philadelphia to limit the sale and use of these dangerous preparations,

RESOLVED, That members of the Philadelphia Association of Retail Druggists discourage the sale, unless ordered by a physician on prescription, of any proprietary or patent preparation containing these habit-forming drugs; and also

RESOLVED, That this association commend Dr. Joseph S. Neff, director of the department of public health and charities, for his earnest efforts to prevent this indiscriminate sale and use of such dangerous preparations, and the members of this association give the department every possible aid and encouragement in this excellent work.

These resolutions can not be commended too highly. They are right! They are humanitarian! Of all the "patent" medicines those certainly are the most insidiously dangerous which instil the appetite for narcotic drugs during the susceptible periods of infancy and childhood. It is the plain duty of the physician to point out this danger on every possible occasion—and, as the result of splendid work already done, the people are beginning to understand its reality:—but it certainly is gratifying to feel that the drug trade is now taking a hand in the fight. These Philadelphia resolutions should be brought to the attention of our pharmacist brethren everywhere.

Think what it would mean if the billboards of the land and the newspapers and magazines should all carry a daily message regarding the prevention of disease, the folly of intemperance, the value of certain foods, the possibilities of thrift, the citizens' duty, the iniquity of land speculation, or some other educational message to millions of people.
—David Gibson.

A BAS THE PUBLIC DRINKING CUP

The Cup Campaigner is a militant little paper published at intervals by persons striving to banish that most prolific medium for spreading disease, the public drinking cup, containing authentic reports of the rulings of health officials, the growth of public sentiment through the press, and other developments of the crusade. It is edited by Hugh Moore, 115 Broadway, New York City. The August number, which is No. 2 of Volume 1, contains several lurid cartoons which have appeared in various daily papers and Board-of-Health publications, illustrating the harmfulness of the public drinking cup.

It is, indeed, high time that this more than a nuisance should be abolished. Not only has the public drinking cup been shown to be an important factor in the spread of tuberculosis, diphtheria and scarlet-fever, but more especially are the venereal diseases communicated with great frequency through this medium of disseminating disease. We wish this little publication every success

and trust that the means of continuing it will never fail.

THE UNITY OF THE ORGANISM AND POSITIVE MEDICATION

Charles H. Hubbard, writing in *The Hahnemannian Monthly* for August, very forcibly illustrates the importance of exercising a true perspective in the treatment of our cases. He illustrates his position graphically by the expression of an ophthalmologist who replied to the request to prescribe for a hepatic disorder in an eye-patient, "I treat eyes, not livers."

The author aptly points out that no part of man's organization can be separated from its associate union in the human economy without disturbing somewhere, somehow, and in some degree the normal equilibrium of that organization, and that thus it must necessarily follow that no part of man's structure can exist and function in its highest development and perfection wholly independent of its organic relationship; that every individual atom or ion of the human body has a vital relationship with every other atom or ion, and that, hence, no disturbance can occur in one atom without derangement in some other atom or atoms. It is, therefore, logical to conclude that, whatever means are employed for the cure or relief of a malady without regard to its location or character, must affect other structures than those presenting symptoms for which treatment is instituted.

The important truth of these statements is all too forcibly illustrated in the frequent untoward and undesirable action of drugs that are administered for a definite purpose and with a view to obtaining certain selective effects upon some organ. It is important to know, not only the selective action of a drug upon an organ or a set of organs, but also to investigate and ascertain a possible action upon all other organs and upon the entire metabolism of the body. Only in this manner can we succeed in positively circumscribing the definite effect of drugs upon the organism, and only in this manner can we be enabled to use drugs deliberately and for positive indications.

All too often drugs are given as though shot from a blunderbus, nor does this apply to the "shotgun" prescription alone but quite as forcibly to single remedies or to limited combinations of remedies when administered without any definite knowledge of the results, immediate and mediate.

We wish to add to these thoughts, that it is to the practician, to the man in the field, to whom we must look for information concerning the remote action of drugs, and it is to his observation that Medicine perforce must owe its ultimate knowledge of the possibilities of drug-treatment in every particular instance.

J'ecris comme je pense, et ecris comme je crois; voila mon secret.—Burggraeve.

OLD AGE AND HOW TO ATTAIN IT

Lorand has recently published a small volume upon old age, the means of preventing and of combating it, a notice of which appears in the current number of *Le Mois Medical.*

The possibility of men living to become one hundred years old has been demonstrated by numerous examples. Their judicious modes of life ought to be an example to those who desire to imitate their longevity. A good constitution is assuredly an important factor; nevertheless, persons of feeble constitution through their mode of living, have attained an advanced age and have transmitted to their descendants a constitution of better quality than their own.

Lorand's work is divided into twelve chapters, advocating the following maxims:

1. Live as much as possible in fresh and healthy air, especially in the sunshine, provided it is not too hot.

2. Eat meat but once a day and moderately. Let the diet be composed principally of milk, eggs, cereals, green legumes, butter, cheese and fruit. [I would object to the cheese, which should be taken in very small quantities, on account of its very high nitrogenous percentage and its tendency to constipate.]

3. Take care of the skin, and each day take one bath.

4. Go every day to the closet. Cleanse the bowel once a week by the aid of a mild purgative.

5. Dress in porous clothing, especially of wool; wear shirts with loose collars, and low shoes. Select, in summer, a hat and clothing of light color, in winter preferring darker tints.

6. Go to bed and rise in good time.

7. Sleep with the window open, in a bedchamber dark and quiet. Do not sleep less than six and a half hours or more than seven and a half, eight and a half being the limit for a woman.

8. Rest perfectly once a week, passing the period from Saturday to Monday in the country or in the mountains.

9. Avoid moral shocks, the cares and excitements of the spirit.

10. Be moderate in sexual indulgence, but do not suppress this instinct entirely.

11. Avoid localities badly ventilated or overheated.

12. Use alcohol, coffee, tea and tobacco very moderately.

If there is any excuse for even the most moderate use of alcohol it has escaped my observation entirely. As for tea and coffee, it depends upon the individual, and I should say the same as regards tobacco. With some persons tobacco seems to be of advantage in certain directions, but I believe these substances should be employed only upon the prescription of the physician, who thoroughly comprehends their direct and remote action and their applicability to the case in question. As to their general use, speaking of men and women in general, I would say that longevity is enhanced by abstinence from all four.

These twelve maxims are important and interesting, yet they do not by any means cover the entire field. Scarcely anything is said of exercise. I firmly believe that the continuance of active habits prolongs longevity and certainly prolongs the happy and useful period of one's life. Many times in my experience of more than forty years as a physician I have found cases where sisters or brothers, similar in all respects excepting that one continued the active habits of life while the other subsided into slothfulness as years advanced, gave instances of the sort to which I refer. In every one of these the active one enjoyed life and lived longer than the indolent one. Though overwork and deprivation shorten life, I am sure that reasonable physical exertion and abstinence rather than overindulgence in food and drink tend to prolong the years.

The subject might be prolonged with interest and benefit indefinitely, for what, after all, is the greatest specialty in the practice of medicine but the art of prolonging life? And he who in studying his various specialties holds above and as comprising all of them the art of prolonging the life of his patrons, by health, comfort and happiness, after all is the ideal physician.

Read the articles on "Senility" which Father Epstein, our eighty-two-year-old youngster, is translating for you in the "Gleanings" department.

One word of well-directed wit—
A pebble-jest—has often hit
A boastful evil, and prevailed
When many a nobler weapon failed.

PURE UNADULTERATED "FUN"

The Pacific Pharmacist tries to be funny, and succeeds, though in an unintended way. This curious paradox may be explained by referring to the July number of that interesting periodical, page 149. The editorial is headed, "It Is to Laugh." The editor, acting upon the presumption that he knows as much as any doctor does, and a good deal more besides, undertakes to be exceedingly amusing at our expense, quoting from a paper in a recent number of CLINICAL MEDICINE, giving the components suggested for a physician's emergency case. We physicians of course know that in making up such a case it is necessary to employ a few remedies which can be used for all ordinary emergencies likely to come to the doctor, in some of which the utmost haste is necessary in order to save life; and that for this purpose

it is necessary to have remedies which act with quickness and precision.

The editor becomes merry over a "remedy for drowning." Well, if anybody is in danger of drowning, wouldn't the doctor be called, and if so, as long as life is in the patient, would he not try to save that life? Very well! I defy that funny editor or any druggist in creation to find a remedy so perfectly suited to retain the life as the combination of glonoin, hyoscyamine and strychnine, here recommended. The gentleman evidently is laboring under the presumption that the remedy is suggested for use on the drowned, but surely it is hardly necessary to go so very far to make a joke.

Further on he illustrates still better the druggist's limitations, where he criticizes the suggestion of the same combination for use in sunstroke. "Sunstroke," to the editor, means but one thing, which is that affection characterized by very high temperature, for which the article which he garbles and distorts very properly suggested the vascular sedatives, veratrine, aconitine and gelseminine. But under this term is popularly included another and very different condition which we physicians generally term "heat exhaustion." Since both are treated in the textbooks under the name of sunstroke, and since every physician knows perfectly well how to separate the two, we felt confident we could leave to our readers' intelligence the task of determining, without being told, what form of the malady popularly termed sunstroke is thus treated by vascular sedatives, and what forms require the tremendously powerful stimulant combination mentioned.

The article was not written for the laity. Had the editor of *The Pharmacist* submitted the matter to a physician, he could have secured the information he lacked.

The incident serves to reminds us of the fact that the late Prof. Searby is no longer director of *The Pacific Pharmacist.*

BEAUMONT, FATHER OF DIGESTIVE PHYSIOLOGY

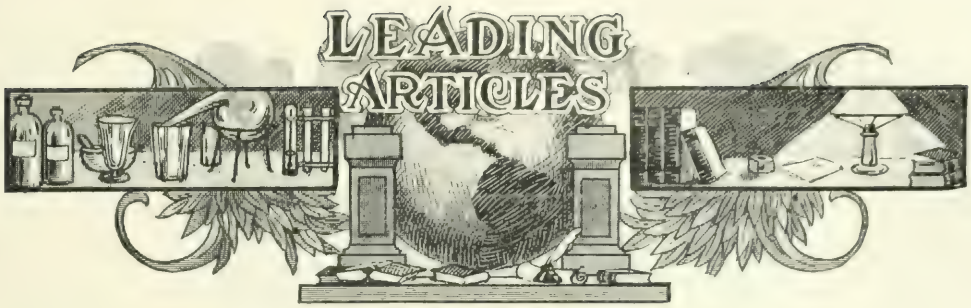
The Montreal Medical Journal for August, 1910, contains an interesting account, from the pen of Dr. Monahan, of Dr. Beaumont and his classical investigations, or human experiments, on Alexis St. Martin, first published in 1833. We are particularly interested in reading Dr. Monahan's paper because we are so fortunate as to possess in our library a copy of Beaumont's book, which is entitled, "Experiments and Observations on the Gastric Juice and the Physiology of Digestion, by William Beaumont, M. D., Surgeon in the U. S. Army, Plattsburgh. Printed by A. D. Allen, 1833."

Beaumont's investigations are of importance, not only because they demonstrate the physiology of digestion, but also because they illustrate the possibilities in the way of research work on the part of the practising physicians and because further, they form one instance of many in which a comparatively unknown general practitioner has served the cause of medical science in an inestimable degree.

Such men as these have been frequent, and in addition to Beaumont himself, we need only recall that Dr. McDowell, who performed the first ovariotomy, was a country practitioner; that Marion Sims was also a practising physician; even Robert Koch was practising in a small town when he laid the foundation for his epochal discoveries. Louis Pasteur was a simple country doctor when he first conceived the idea of his future researches in the realm of the causation of disease.

And so we might go on enumerating instance after instance, every one of which should serve as a stimulus to our readers and to physicians generally to investigate and study and observe closely, because it is the careful and full observations of the clinician which enable us to draw the balance between theoretical deduction and experimental results.

While few of our readers will become Beaumonts, McDowells or Sims, many might be contributing things of undoubted value to medicine and mankind. There are thousands of half-uncovered discoveries which need but the light of day to have their merit recognized; many things which need but an added hint here or a suggestion there to make them of service to the world.



What Experience Has Taught Me

A Physician Who Has "Made Good" in General Practice Tells of the Things that Seem to Him to Count Most

By C. F. WAHRER, M. D., Fort Madison, Iowa

AN honest answer to your request to write something for the readers of CLINICAL MEDICINE on the subject of what contributed most to my success as a physician would at first look like a certain amount of egotism, unless you were sure that my professional life really was and is a success.

The fact that I have been president of several medical societies, among them of the Tri-State Medical Society and my own State Society, and have held offices in the American Medical Association, may have given you an exaggerated idea of my worth as a medical man. However, whatever the real merits of the case may be, I should attribute this success to several factors, as follows:

Have Faith in Yourself

First of all I will say that in whatever I undertake I am in earnest, and pursue my object in a conscientious and persistent manner. In addition to this, I have a certain amount of confidence in my being successful in what I have undertaken. Not that I always achieve what I undertake—far from it; but that is what I try to do, and that is half the battle. Of course by this I don't mean that one must have a blind, foolish faith in one's self; but one must have some reason why he expects to win or to lose. Preparation for one's life-work must be presupposed. Reasonable objects must be your pursuit. Chimerical things, such as perpetual motion, or the transmutation of the baser metals into gold, or the building of some tower of Babel, are not included in the category of the reasonable objects of success.

Next, honesty of purpose and honor in dealing with our fellow men are other factors of professional success. This is disputed by some, but I hold that honesty and honor are the chief factors in real success.

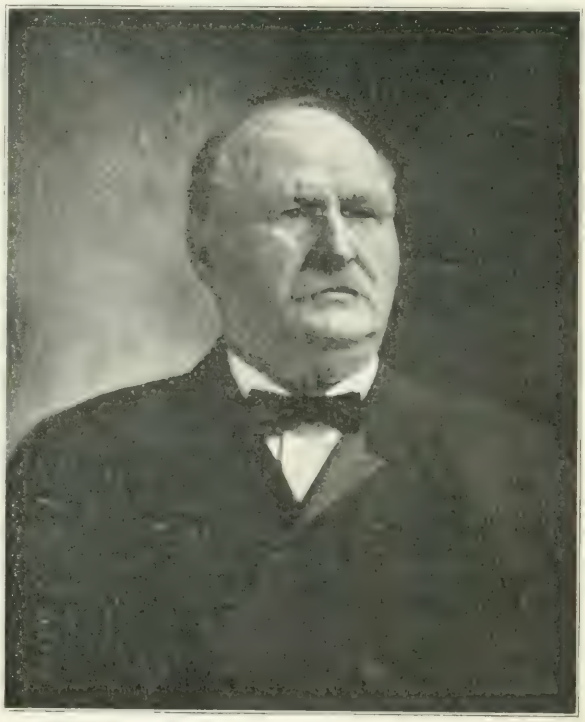
Material success is not all one has ambition to achieve. Respect for one's self, for one's own, for one's home and country, for the society to which we belong, all these and more must be reckoned with.

The Value of Common Sense

Possessing the rare gift of common sense is another and most valuable factor in success. I presume those who do not have this—and some do not—cannot be held responsible for its absence, any more than for the absence of beauty, or stature, or any other mental or physical possession. But he who has it is most fortunate, if he makes use of it.

Common sense is the basis of judgment. In many things in life we have no absolute

rules, so in these cases we must let our judgment be our guide. The results will show whether our judgment was good or bad. In the practice of medicine this is as often our only guide as the many rules we have for our cases. And when the usual rules and our good sense come in conflict, it is safer to let our judgment guide us rather than the printed rules.



DR. C. F. WAHRER

For this reason it happens at times, though not often, that the more unlearned man, with the better and cooler judgment, succeeds where the bookworm with all his college learning fails. But when scientific training is coupled with good sense, then we have team-work of the most desirable kind. When the Bergeron treatment for consumption first came out, I could see no sense in it, and so never made an effort to try it on my patients. Later experience proved my judgment good. The same has held true with other fads. But when I was presented with the principles of alkaloidal medication, I at once recognized its basic truths and accepted as much of it as was applicable to the cases in hand, and have had no cause for regrets up to this time.

Pope's maxim,

> "Be not the first by whom the new is tried,
> Nor yet the last to lay the old aside,"

is especially true in medicine. With our Carnegie laboratories, and our Rockefeller research institutions, we have no need to make dangerous experiments on our patients, which, if they do not prove disastrous, yet yield us no positive results, while our patient's time is wasted for naught.

Another factor in my sum of success lies in the fact that I never advocated with especial violence any bizarre forms of treatment or fads. I have always held that, as a rule, the great truths lie somewhere among the masses, and not with isolated individuals. While there are some notable exceptions to this, yet in the main the course I have adopted generally proves the correct one. Here again one's common sense will help to decide should a dilemma arise.

I said, in the beginning, that I am always in earnest. Now, I do not mean the serious earnestness of the owl or of his more learned cousin, the ass, and if by this my readers infer that I never smile, they are mistaken, because I smile a great deal; in fact I laugh still more, as I see a great deal to laugh at, and I seldom repress the temptation. I never laugh at funerals, nor cry at weddings, nor behave like an encyclopedia at a medical banquet, as such behavior doesn't appeal to me. I believe in joy and happiness, and am sure I have made many a mourner glad, made many a face to smile, even when discussing grave and sleepy medical themes, at the usually somnolent medical society, so much so, that some of my anxious friends

have expressed the serious fear that I lack dignity.

So far as we know, man is the only animal that can laugh, so I think he should not miss the opportunity to make use of his monopoly when the proper occasion presents. Therefore, it is not by being too serious that I manifest my earnestness.

A Way Not to Seek Success

Another way in which I do not court success is in seeking it in the membership of churches and lodges. Though I am all kinds of a Mason, an Odd Fellow, a Shriner, and a Presbyterian, and then some, I do not believe any of these will add one dollar to my income nor the least of prestige to my standing as a medical practician. These organizations systematically fleece one off the money obtained from other legitimate sources, for their own use, and for the maintenance of the lame ducks and privileged characters in their memberships.

The only way to become successful is to make good in your profession. Pretenders may skim along on the surface and lean on their indulgent stronger brethren for a long time, but when the real man appears in their field there is but a short-lived term to their former popularity after that. I always have had before me the maxim, "Fools rush in where angels fear to tread," and this has kept me from the daring that makes so many apparently popular, and which so soon leads to downfall.

Thorough preparedness, followed by unceasing hard work, and this coupled with honesty of purpose and a desire to offer your patients an honest dollar's worth of service for his confidence and his money, will usually win anywhere. Making the sparks of a static machine raise the hair on your patient's head, playing the gynecologist by fingering lamb's-wool tampons daily for a year or two, playing the surgeon by approximate reductions of fractures and dislocations, lancing an abscess now and then, or opening an abdominal-wall boil and saying you have operated for appendicitis, all these will work for a while, till you meet the real thing and *can't* make good and some other and more competent man does the work—I say, all this will not spell the success of which a man can be proud.

All these things I have avoided, and never have tried to do what I had not prepared myself for. It is no disgrace not to be able to do everything. But it is a sign of honor and character when you do well what you claim to do. The world will give you credit for work well done, no matter how limited your sphere.

I have made a reputation in some cases when I frankly stated that I did not know what ailed my patients. Of course that is not what is usually expected of a doctor, but it is a still more hazardous thing to pretend to know when you don't.

Supplying the Patient with Medicine

As regards my practice of providing the patient with medicines: I think it is best if one has the time to dispense most of his medicine, and for very obvious reasons. Most patrons like it best, and among the people of moderate means it means quite a saving and often brings the doctor money which otherwise would have gone to the druggist, as the people usually do not have two fees in their pockets. In some cases it is a question of getting to see your office patient but once in the one instance, or seeing him again when his supply of medicine is gone. I wish by this to cast no reflection upon the druggists, but my experience is that the average druggist is not doing business for the special purpose of looking to the doctor's interests, as he has other interests to look after.

In the selection of your drugs it will pay to get the best and purest, regardless of the cost, and then give them to your patient with a chary hand, as that will save you money and not litter up your patron's house with remnants of useless medicines, thus tempting the too economical to self-drugging with the "left-overs" they may find in their cupboards and bathroom closets.

See to it, also, that your medicines are palatable, compact and attractive. Avoid polypharmacy, both in the compounds you administer and also in the multi-

plicity of remedies you furnish any patient; in the first place it is not good practice, and, secondly, it causes thinking patrons to suspect that you are not sure of yourself. The alkaloidal remedies furnish you just such sure, safe, palatable and attractive medicines in the cases in which you may find them useful in your judgment.

In these few scattered remarks your readers may find the fundamental elements of my success in the practice of medicine and I trust that those who have been treading uncertain roads may find something to guide them in the thorny maze every physician must travel, no matter if his field of labor be among the effete rich, among the slums of the city, or at the traditional country cross-roads.

To all of you I wish Godspeed, good luck, and success.

The Old and the New in Medicine

By THOMAS G. ATKINSON, M. D., St. Louis, Missouri

EDITORIAL NOTE.—Not to "fight" disease, to seek to drive it out of the body as if it were an evil demon, not merely to observe and study it as if it were a foreign force, using the patient's body as an arena, but rather to look upon it "as a disturbed phase of the interplay of action and reaction between the organism and its environment," something to be overcome by the use of definitely active remedies that rouse the body to reaction, so that it can fight its own battle and better for our help—this is the modern conception of disease as outlined in this admirable paper by Dr. Atkinson.

IF the astronomer be asked to indicate a line of demarcation between the old astronomy and the new, he has no hesitation in fixing it at the introduction of the spectroscope. The development of this comparatively modern instrument and its application to the study of the heavens led the science of astronomy out into entirely new realms, and from that time on, instead of confining herself to a mathematical calculation of magnitudes, distances and motions, she undertook an investigation of the constitution and physical conditions of the stars and planets.

While it is probable that no such sharply defined, tangible line can be drawn between the old and the new science and practice of medicine, yet it is quite possible to demonstrate a set of concepts and methods and achievements which distinguish the new medicine from the old with just as marked a contrast as the spectroscope divides the two periods of astronomy.

Our Idea of Disease Has Changed

Doubtless the most fundamental difference—that which underlies all other differences—is the changed way in which we regard the nature and phenomena of disease. Indeed, there have been three distinct stages in the evolution of this conception of disease, and it is only now that we are beginning to grasp and act upon the perception that the truth lies, as it always does, midway between two extremes.

In olden times—and this, so far as medical science is concerned, does not necessarily mean so very long ago—the conception of disease was almost wholly a subjective one. Inasmuch as there were none but subjective means of recognizing disease, it was natural and inevitable that the mind-picture which men had of it should be correspondingly subjective. The only mode of its expression, as between patient and physician, being through the word-description by the former of the subjective effects it had upon him, it could hardly be otherwise than that the latter should come to regard the disease as being an aberration of the patient's subjective personality. And even though this subjective phenomenon came to be clothed with physical characteristics, so that it was no longer the mind but the body, in its various

parts, that was affected, still, it did not lose its essentially subjective character—it was still the patient that was sick within him self, with humors and cholers and the like, with little or no reference to the outside, objective universe.

The Dominance of the Objective in Disease-Study

With the advent and rather rapid development of objective instruments and methods of diagnosis there came a revulsion from the subjective viewpoint, and the pendulum swung to the other extreme. The swift and startling succession of discoveries, all indicative of the objective etiology and manifestation of disease, gave tremendous impetus to the pendulum's velocity, culminating in the enunciation of the germ-theory and the daring adventures of antiseptic surgery, which gave an ultraobjective cast to our conception of disease, and threatened to relegate the patient himself to the role of a mere passive battleground of contending forces, in whose struggle he had no personal part.

Of late, however, a saner and truer conception, formed out of the rational elements in both these former concepts, has begun to take shape and is fast dominating medical thought and action. Its most profound biologic significance is seen in the modern trend toward opsonic indexes, serums, vaccines, and the like.

Our latest, best, most scientific concept of disease is the same as our conception of health—that of a dynamic interplay of action and reaction between objective and subjective forces; a variation of the perpetual strife between the man and his environment, in temporary and sometimes lasting favor of the latter; a disturbed phase of a wonderful system of dynamic adjustment between the elaborate subjective phenomena represented by our ancestors' "humors" and the no less elaborate objective phenomena represented by the nineteenth century's materialism. So the patient on the one hand and his environment on the other have assumed their proper relationship—the subjective and objective elements of disease have established each its own significance.

Therapy Modified by Our Conception of Disease

This evolution of the conception of disease was naturally attended by a corresponding evolution in the conception of therapeutics; and the one is exactly paralleled by the other.

Under the subjective idea, that the patient was sick within himself, that he "stewed in his own juice," so to speak, and that all the forces and elements of his disorder were circumscribed within the limits of his own body, it was inevitable that the influence of drugs should be overrated and their use distorted and overdone.

Since this idea of disease was based upon a similarly subjective idea of physiology, its therapeutics demanded the socalled "physiological" action of drugs. Reaction was unthought of. By this was meant the mechanical or chemical action of the drug, which, ignoring all dynamics as between itself and the disease, overwhelmed the affected organ or function as by a static force, and simply crushed it into submission or killed in the attempt. Of course this was not what really happened. Of course the procedure was tempered by judgment just as intelligent and discriminating as that which we now exercise, and under this socalled "physiological" system of therapeutics many effective cures were made. But such was the principle of the therapeutics of subjective medicine.

The recession of the pendulum to the objective concept of disease brought with it a corresponding revulsion of attitude toward drug-therapeutics.

What Is Therapeutic Nihilism?

If disease were but the clash of contending forces across the patient's body, of what use to pour medicines down his passive throat? To be sure, he suffered a stress from merely lending his person, as it were, to the staging of the conflict; but drugs could have no specific influence over such a condition. It was just a question, with a shrug

of scientific shoulders, whether the constitution of the patient would stand the racket of contending elements. If it did, he would recover. If not, he wouldn't. So, with the exception of a general tone-up treatment, and an occasional stimulant in crises, practicians adopted a policy of "masterly inactivity;" and textbook writers got into the way of stereotyping the phrase, "Such-and-such is a self-limited disease, which can neither be aborted nor cut short by any known means at our command."

This is what we now call therapeutic nihilism. But for its prevalence, we cannot specially blame those who inaugurated it, since is was a natural and inevitable corollary of the then prevalent conception of disease. Those only are to be blamed who, in spite of more modern knowledge, still persist in their skepticism. "This is the condemnation, that light has come into the world, and men love darkness rather than light."

With the last, best viewpoint of health and disease came the deepest and truest insight into the real inwardness of therapeutics.

Disease, as it now appears to us, is not a thing of internal humors and cholers; nor is it the cross-play of external elements with the patient's body as their arena; it is, as we have seen, a disturbance of the balance in a perpetual play of action and reaction between subjective man and his objective environment.

There is, of course, the objective side to the matter; and in the broadest interpretation of the word, "therapeutics" is anything and everything that influences this objective group of forces must be included in the term. But in the generally accepted sense of the word, the man's end of the fight is the therapeutist's end. He may have a sort of negative office to perform in modifying the objective phase of the disease, but his positive, active work is to help the man. Only, with his modern, intelligent understanding of the nature of disease, he must help him, not by forcing internal and isolated functions, but by stimulating and reinforcing the reactionary powers of the man himself against his objective foes. In other words, under the present conception of disease, we neither fight the man nor let him alone, but we help him fight the disease.

Our New Concern Regarding Drugs

So we are no longer concerned about what the drug does to the man, but rather in what the man does in the presence of the drug; we no longer seek the action of a remedy, but its reaction; we do not give it for its physiologic effect (so called), but for its dynamic effect. To be sure, that is its physiologic effect in our present understanding of physiology, which is also dynamic and reactionary.

This new principle of therapeutics has brought about many important changes in the practice of the art—for therapeutics is an art, albeit based upon science, much the same as music is foundationed upon the science of acoustics.

For one thing, it has changed our therapeutic valuation of many drugs—indeed of almost all those which were used under the old-time subjective system; so that we find ourselves now using morphine for a heart stimulant and mercury as a tonic, uses which would simply have staggered our fraternal ancestors. It has also enlarged the number and range of our therapeutic agencies; for manifestly, if by therapeusis we understand the stimulation of the organism to successful resistance of morbid invasion or derangement, every agent which has thus served to stimulate it, or which may reasonably be supposed capable of doing so, must be recognized and utilized as a therapeutic agent.

Furthermore, this enlargement of therapeutic possibilities has brought with it a correspondingly increased responsibility and need for intelligent discrimination. It admits of no rule-of-thumb treatment.

And here, I think, is where serum-therapy will fail by itself, unless it be reinforced by other treatment. *It is not action, but reaction, we are after;* and all organisms do not react in the same way to the same agents. Under the lash of the whip one man is stung to fresh endeavor; another sinks, fainting. In one a kind word arouses am-

bition; in another it pampers self-conceit. So with the measures and agents used in minisfering to the body.

Nothing short of a thorough understanding of all the conditions, an equally thorough acquaintance with one's therapeutic armamentarium, and an intelligent application of one to the other will suffice the modern physician to meet adequately the situation.

The New Therapeutics—"Dynamic" Therapeutics

In the actual use and administration of drugs the new system of therapeutics—that which I have elsewhere ventured to christen "dynamic therapeutics"—has brought a few changes of considerable significance, and these are dependent upon, and grow out of, the dynamic principle.

First of these is the almost universal change from the multiple to the single remedy. By this is not necessarily meant that the physician nowadays gives but one drug in a disease, or even at a time. That is nôt the true inwardness of the single remedy. It is that, whereas the physician used to mix drugs up in a vague, overlapping, hit-and-miss combination, relying on the net resultant for the desired effect, now he carefully chooses each separate drug for a distinctive purpose, and aims each one, like a bullet, straight at the bullseye, expecting (and if he is a skilful therapeutist, getting) the total effect of them all. This is the method nowadays pursued even by those who persist in writing combination prescriptions. It is no longer the net resultant of the combination that they seek, but the combined totality of the units. And that is single-drug therapy.

It is easy to see that the single remedy is the only adequate or logical method of applying therapeutics to the new conception of disease and of the new system of therapeusis. Again, it is reaction, not action, we are after. It is perfectly easy, to be sure, to get action with a shotgun filled with grapeshot—and reaction, too, for that matter, of an incoordinate, purposeless kind. But intelligent reaction can be obtained only by placing single bullets, one at a time, with a carefully sighted rifle, just where, and with just the force, one desires to hit.

The Basis of the Single-Remedy Idea

And it is this principle, and its growing recognition by medical men, and the increasing demand for its application, that is bringing out a supply of well-made "bullets"—that is, of carefully prepared medicines, made on the single-remedy principle, with a view to target practice.

Every departure in pharmacy which tends to concentration of the remedial principle is a concession to, and a promoter of, dynamic therapeusis. It is this, I think, which, consciously or unconsciously, gives the most basic *raison d'être* to the active-principle movement and ensures its permanance and expansion. It is directly in furtherance of dynamic therapeutics—an immediate and integral feature of the new medicine.

Equally logical, in the carrying out of this system of therapeutics, is the revision which we have made of the question of dosage. When drugs were given for their "action," when the finely organized dynamism of the body was regarded as so much inertia, and medicines were hurled in to overcome the inertia, the question of dose naturally resolved itself into a determination of the least amount with which any such "action" could be obtained and the greatest amount that could be safely thrown in; hence the minimum and maximum dosage, which our pharmacopeias and our formularies still retain as a vestigial appendix of the old subjective system which modern medicine has outgrown. But with drugs given for their reaction, with the body regarded as a dynamic force-complex, ranging all the way from the most delicate balance to the most furious vortex of motion which our medicines are designed to dynamically influence, dose becomes itself a dynamic quantity.

What Is a Proper Dose?

The proper dose of a given remedy is the dose which will induce in the patient the reaction desired in that particular case. It is gratuitous to talk about a maximum dose, since death or poisoning is never the de-

sired reaction. It is equally futile to speak of a minimum dose, because, as stated, stimuli and reaction differ in different individuals.

The truth is that, under the modern conception of therapeutics, the value of the term dose has been transferred to the other side of the equation; it is no longer a function of the drug but of the reaction.

In the practical outworking of the modern dose, as of the single remedy, it is altogether imperative that we have at our disposal the drug, the whole drug, and nothing but the drug—the double-distilled, concentrated and sublimated essence of the drug. For the presence, however small, of impurities, inert or useless elements vitiates our calculations by just so much, and weakens the accuracy of our aim.

In this respect, also, I think the active-principle therapy amply justifies itself. It is not alone the concentrated character of the alkaloidal remedy itself that accounts for its prompt and effective results. (That the results *are* prompt and effective, nobody that has ever used the alkaloidal remedies questions, no matter what his attitude toward the alkaloidal principle. Only those who have never used them are skeptical on this point.) A large proportion of the satisfactory response is due to the nice control which they give the practician in the matter of dosage, which, as intimated, the modern physician measures, not by drug-mass, but by reaction. This, in my judgment, is one of the cardinal considerations of modern therapeutics, and is, therefore, one of the most important features of the active-principle pharmacology.

The Summing Up

To sum up. The old subjective conception of disease regarded it as having its beginning, continuance and end within the patient's body; had its expression in humors and cholers, and the like; and it called for a drug-therapy that should forcibly "drive out the disease."

The ultraobjective conception, on the other hand, held disease to be a clash of contending elements and forces, quite foreign to the patient, to which his body served as the passive arena; considered that the clinical issue rested in the patient's constitutional capacity to survive the stress; denied the power of drugs to influence the course of the disease; and thus begot a therapeutic nihilism which even now is dying hard.

The modern conception regards disease as a disturbed phase of the interplay of action and reaction between the organism and its environment, directs its positive therapy toward assisting the man's end of the struggle, and therefore looks upon therapeutics as a dynamic affair, the aim of which is not to force drug-action upon the organism, but to arouse reaction in it.

The efficient carrying out of this new idea of therapeutics, in addition to the high degree of diagnostic and clinical intelligence which it implies, imperatively demands the adoption and practice of the single-remedy principle and of the dynamic standard of dosage. And these, in turn, require for their effective out-working the maximum concentration and solubility of the active remedial principle, whether this be an alkaloid or something else

YOU and I deal with the seen, with the ills and griefs of the foreground, and we are quite right in doing so, but we ought to give all honor to the spiritual imagination by means of which the man of science grasps those unseen truths which are eternal, and, using them as a lever, lifts us all out of our difficulties.—Richard C. Cabot.

The Twenty-Drug Idea

The Disadvantages of Too Much "Simplicity"

By A. L. BENEDICT, A. M., M. D., Buffalo, New York

EDITORIAL NOTE.—If experience teaches anything, it is, that the best workman is the one who best understands and has the most skill in the use of his tools. Somehow there has grown up in the medical profession the idea that the mind of the physician is too feeble to appreciate the possibilities of more than a score of drugs and that to know these well he must not even try to understand and use others. It is this idea that Dr. Benedict combats.

IT is an old idea that crops out in the most different connections, at frequent intervals, to simplify mental labor and secure thoroughness by limiting ourselves to a small number of drugs, books, suits of clothes, and what not. *The Therapeutic Gazette*, in the issue of July 15, 1910, reviews several articles on the subject of a limited armamentarium—so noncommittally that it is hardly possible to state the gist of the article. Somewhere in my manuscript file is a twenty-drug article, written in accordance with the request of an editor and held, not for publication but to remind me of my own folly in attempting to limit myself to an impossibly small number of agents even for the treatment of a limited class of diseases.

Not Twenty, but Four or Five Hundred

Some years ago I listed the drugs used in the prescriptions of several years and found that they amounted to four or five hundred, in spite of consistent efforts at simplicity, not only as a matter of time-saving (lazy folk always take the most pains), but to insure a proper concentration of information.

It is the intention of this article to keep away from a listing of items and to throw this work on the reader. Accordingly, I make this suggestion to anyone who inclines to the twenty- or even fifty-drug idea. Look over your own office stock of substances that you ordinarily do not prescribe or think of as drugs and count them: Aqua, aqua ammoniæ, chloroformum, æther, gossypium purificatum, æthylis chloridum, aqua hydrogenii dioxidi; and so along the shelves. Now look about you and count the things you keep in the office that are practically indispensable, and you will find, unless your practice is peculiarly limited and lady-like, that the limit of twenty is greatly exceeded.

The Emergency List Not a Small One

The writer's hypodermic case, which is intended to contain only necessary emergency drugs, holds twelve different articles. One of these, apomorphine, has been used only a few times in twenty years, but when needed, it is needed very much indeed. No one can be more conservative about morphine than the writer. He has never even used up the free samples forced upon him. Yet who can do without morphine?

Then, too, the pocket-case or hand-satchel with drugs for extemporaneous dispensing, varying from the small outfit of the prescription writer in the city who carries only what may be needed at a moment's notice, to the elaborate supply of the man who is his own druggist by necessity or choice, adds materially to the number of drugs employed, day after day.

In estimating the command that a writer has over language, it is not the pronouns, articles, common verbs, prepositions and conjunctions that are used over and over again that constitute his vocabulary, but the words, mostly nouns, to a less degree rare verbs and adjectives, any one of which appears only a few times in a book. So the therapeutic power of a physician is to be estimated not so much by his use of morphine, bromine salt, bismuth, calomel, etc., but by his wise choice of the occasional

drug, prescribed once in a year or a month; and it is such drugs that swell the list that represent his available materia medica.

It is not meant by this that the routine employment of drugs, as of other professional means, is not a test of ability, nor that an effort should be made to find a new drug for each case; but the man who never goes outside his little list of favorites, to avoid this or that contraindication or to secure some special effect, will, generally speaking, use his limited materia medica as a matter of habit rather than of intelligence. In the case of the literary writer, a large vocabulary may indicate a nice discrimination in the use of words and a large fund of knowledge, or it may indicate merely a form of ostentation easily gratified by running through the pages of a dictionary. So, in the case of the physician, it is easy to counterfeit a wide knowledge of therapeutics simply by scanning the pages of a work on materia medica, getting a superficial idea of the applicability of a drug, and using a variety of drugs of the same general group indiscriminately.

It may be stated in paradoxic terms that the best therapeutist is the man who is constantly trying to simplify and restrict his armamentarium and who, nevertheless, is always looking for something to supplement and supplant what he already has.

Simplicity Aided By the Active Principles

This effort at simplicity, while striving for the best without regard to simplicity, is greatly aided by the use of reliable active principles. There is a strong sentiment—and the word sentiment is used advisedly—in favor of galenicals. Unfortunately, in fully half the galenicals one is using at least two drugs, the one intended and alcohol; the latter, it is true, not in large dose, still in sufficient quantity to act locally on the stomach and, in susceptible individuals, to have at least the possibility of moderate vasodilatation and cerebral inhibition. In some cases, that of opiates, for example, the administration of galenicals involves not only the conjoint action of alcohol, or of some other drug (glycerin, ammonia, ether, acetic acid, etc.), which may at least affect the stomach, but the crossed action of the main alkaloid with one or several others, which may be more or less synergists or antagonists to the principal alkaloid.

Now, it is not only the duty of the physician to know why he prescribes a certain drug, he should also watch that drug to see whether it is doing what he expects. In other words, every drug administration should be not only a check on one's diagnosis and interpretation of indication, but of drug-action in general. A great deal of the vogue of therapeutic nihilism is due to the fact that lecturers and writers on therapeutics have repeated a lot of trash that was either false or true only in a qualified sense. As one candid teacher said of the class of drugs called antispasmodics, they were so called because there was no form of spasm which they would control. And pretty much the same might be said of ecbolics, stomachics, nervines, etc.

Actual Advance Depends Upon Study of Drug Units

The endeavor to classify drugs has done immeasurable harm to therapeutics. The only actual advance has been by the study, experimentally and clinically, of each drug by itself. Now, a drug in galenical form is not just itself alone. Aside from the action of alcohol and other excipients and of concomitant alkaloids, etc., of importance, the various ingredients, whether derived from the drug or adventitious, that go to make up a composite flavor, are often of the utmost importance because they set up reflexes in the alimentary canal. Consider the instances in which a galenical preparation of digitalis nauseates, when a small tablet can easily be retained. Consider the fact that magnesium sulphate seems to be more energetic than sodium sulphate partly because it tastes nasty, or that the adventitous bitter in cascara seems to reinforce its cathartic action in a similar manner.

On the other hand, there seem to be some few vegetable drugs the active principles of which have not been satisfactorily isolated—or it may be that the natural polypharmacy happens to be what is needed. In such

instances, as always, a conservative regard for indubitable experience should guide us, though not to the extent of pessimism for the future.

As has been intimated in other articles, the writer has quite a strong leaning to the beliefs of the past, always provided that they are properly qualified according to actual facts. The confession has been made, in one of these articles, of a search for specifics, though with no childlike faith that any drug will cure in one hundred percent of cases, and with no idea that a very careless nomenclature of complicated disease-conditions can be made the basis of therapeutic indications. But, in so far as an exact unit of lesion or perversion of function can be formulated, it is rational to believe that if that unit can be benefited at all by a certain procedure, the same procedure will always have the same effect.

In the writer's opinion, too much stress has been laid upon idiosyncrasy, at least in regard to drugs. Too often the name idiosyncrasy means simply that a drug, unintelligently chosen, has had a perfectly logical, harmful action. The delicacy of response to reflexes is, of course, difficult to estimate in advance; so, too, if one has no idea of the exact acidity and bulk of stomach-contents, one cannot tell how a given dose of acid or alkali will act to afford relief. Thus there is, in a sense, an idiosyncrasy to dose. Much more rarely than textbooks imply is there a reversal of physiologic effect, in any true sense, such as the excitant action of morphine.

In short, therapeutics is a fairly exact art, provided that it is based on correspondingly exact indications, although much of the time-honored teaching has fostered an unreasonable expectation of results—doomed, of course, to disappointment.

Without venturing into details, it is obvious that the various chemic, antiseptic, excito-reflex, sedative, and local indications which could be designated as units of lesion or perversion of function are quite numerous.

It is true that, occasionally, a single drug may fulfil, apparently, quite independent indications. Antiseptic and anesthetic or anodyne actions are quite apt to be associated, for the obvious reason that at the root of these actions is the same depressant effect upon protoplasm. So, too, the cardiac, vascular, bronchiolar, intestinal, uterine and intraocular involuntary muscles, having the same or very similar structure, are liable to be acted upon in the same way by the same drug, but producing very different ultimate effects.

Sometimes, however, the association of therapeutic actions is not so obvious and may even appear ludicrous. For instance, a person with acute rheumatism, a sore throat, intestinal saprophytosis with indol formation, gallstones, septic cystitis (urinary), a corn, or certain forms of external parasites, might receive some form of salicylic acid as a rational treatment (and by rational is not meant ideal or necessarily curative) for each condition.

Each Lesion or Disturbance Presents a Therapeutic Indication

But, on the whole, we must expect a different therapeutic indication for each disease-lesion or perversion of function. More than this, what may be termed the essential therapeutic agent is rarely an element, by no means always a simple combination of basic and acid radicle. In many instances the indication is for an acid or an alkaline substance, and here there may reasonably be expected a choice, according to individual conditions, among many acids or alkalis. About the simplest therapeutic agent is a salt in which either the basic or the acid radicle alone is the essential remedial agent. But, whichever is the main indication, it is a well-known fact that one or another substitute in the other portion of the molecule may be preferable. About fifteen basic elements are commonly employed as medicines. On the average, without drawing far-fetched distinctions, four or five salts, oxides or other simple inorganic combinations of each are available. When the acid radicle is the essential therapeutic unit, we have, even without venturing far into the realm of organic chemistry, a much longer list, and in nearly every instance a rational

choice must be made between the acid itself (or, if we so call it, the hydrogen salt) or a combination with one of a number of elemental or compound bases.

The newer materia medica includes a number of drugs in which some characteristic, fairly complex molecule-moiety is the active therapeutic unit. It need not act as either base or acid radicle, and it is susceptible of so great change, aside from mere combination with some other moiety of a molecule, that we can scarcely designate it by a given name. We have already alluded to salicylates. Not only must there be an intelligent choice among the H, Na, K, NH_4 and Sr salicylates, not to mention other metals with which the combination is possible, but we must not forget the CH_4 salicylate (practically wintergreen or sweet-birch oil), C_6H_5 salicylate (salol), and such further combinations as salacetol, aspirin, etc., nor the still further modified forms of the salicylic-acid radicle into benzoic acid, with corresponding compounds.

Growth of the Synthetic Materia Medica

To a large degree the synthetic materia medica grows by adopting a modification less toxic and more energetic therapeutically of a certain substance, which itself then becomes unnecessary; but it is by no means a case of adding at one end and subtracting at the other. We are, on the contrary, just beginning to conceive of the principles governing the interaction of complex organic chemicals administered as drugs, with still more complex organic chemicals forming proximate principles of the body, and to conceive of a therapeutic effect as a chemic reaction.

In a sense the growth of our knowledge of organic chemistry will simplify research for new and improved drugs because we shall follow logical paths of induction instead of groping blindly and empirically for a diminution of toxicity, increase of some particular physiologic effect and modification of by-effects. But the more definite our knowledge becomes, the more we shall have to discriminate in establishing therapeutic indications, and the greater number of variants must we have at our disposal for each principal unit of indication.

More Agents, Not Fewer, the Need

From quite a different viewpoint it is evident that the tendency to limit our therapeutic agents to a small number is futile. Each intelligent practician devotes a good share of his attention and skill to finding out things that he does not know.

The definite conception of ignorance, in a particular field of thought, is the first step toward real knowledge. For instance, we want a dwarfed scarlet-fever germ, either by passage through a lower animal or quite artificially which, introduced into a child, will produce redness and exfoliation over a space the size of a nickel, which may be transmitted to others in the same mitigated form, but not as typic scarlatina, and which will prevent the occurrence of scarlatina as it exists today.

We want the same kind of vaccine for every semelincident disease. We want ferments which will cause sugar and fat to be properly oxidized in the system. We want satisfactory solvents for various forms of calculi. We want a heart tonic that will not tighten up the arterioles. We want something that will do what quebracho was supposed to do and what fibrolysin is still claimed to do. We want many things in therapeutics, not all of which we shall get; still, we may well hope to see our wishes fulfilled in part. And, as our art improves, we shall get farther and farther from the notion of a "five-foot shelf" of twenty bottles.

Injuries to the Bones of the Hand

With Simple Directions for Their Treatment

By RALPH ST. J. PERRY, M. D., Farmington, Minnesota

EDITORIAL NOTE.—This is the second paper in Dr. Perry's series on "Injuries of the Hand." This month he discusses periostitis, acute and chronic, following bruises or other traumatisms, osteitis and osteomyelitis, caries and necrosis, epiphysitis and fractures of the different bones of the hand. The treatment is simple, within the means of every physician, and the apparatus described inexpensive as well as effective.

II

Cases of Bone Surgery

Case 9. Railway brakeman. The hand was caught in making a coupling and pinched severely enough to fracture the *os magnum*, chip a piece from the third metacarpal and crush the dorsal tissues overlying those bones. (Fig. 6.) The fragments of the os magnum were coapted and held in apposition; the fragment from the metacarpal was

Fig. 6. Fracture of os magnum, with clipping of the third metacarpal

replaced and nailed in place. The soft parts were dressed with iodoform and loosely approximated with silkworm-gut sutures. The hand was dressed upon a metal plantar splint. After several days, healthy granulation being established, the approximation sutures were drawn up, a few strands of silkworm gut being inserted for drainage, and the palmar splint continued during three weeks of recovery.

Case 10. Railway brakeman. The hand was caught in making a coupling and the semilunar bone fractured, with mashing of the palmar and dorsal soft parts. Holes were drilled through the fragments, two in each, and silkworm gut looped through; the fragments were coapted and the gut tied so as to maintain correct apposition. The soft parts were dressed with iodoform and the hand supported upon a metal palmar splint. The wound was allowed to heal over, enclosing the sutures, which were removed about a month later, without trouble, through a small aseptic incision under cocaine anesthesia.

Case 11. Stone mason. The man was accidentally struck by a fellow workman, with a hammer, the blow breaking off that portion of the pisiform bone to which the muscles were attached, as was apparent upon palpation and demonstrated by an

Fig. 7. Fracture of os magnum and scaphoid

x-ray examination. Under cocaine anesthesia an aseptic incision exposed the bone. The fragment was drilled and nailed in place with a magnesium bead, the incision closed and a plaster-paris dressing applied, which two weeks later was supplanted by an

adhesive-plaster splint. At the end of the third week the patient was discharged.

Case 12. Printing-press feeder. The hand was caught in the machine and the os magnum and scaphoid were fractured, with bruising of the soft parts. (Fig. 7.) Under chloroform a dorsal incision was made and the fragments were sutured as in Case 10. Owing to some idiosyncracy, there was delayed union and resort was had to the phosphorus treatment, with a few applications of the counterirritating salve, which brought about rapid improvement and eventually a good union.

Upon attempting to remove the silkworm-gut sutures, some two months after their insertion, they were found to be imbedded in the callus, so the knots were cut off close and the imbedded portions left to become encysted. No trouble has since developed from them though they have now been encysted for several years.

Case 13. Machinist. The right hand was caught under a die press or stamping machine and suffered a fracture of the trapezium and trapezoid, with laceration of the palmar and dorsal soft parts and dislocation of the trapezial articulations. The patient had just begun work, the hand and machine were unusually clean, so the wound was not as badly infected as might have been.

The fragments of the bones were drilled and sutured, the inner fragment of the trapezoid being sutured to the outer fragment of the trapezium, the suture passing over the other two fragments and the trapeziotrapezoid articulation, thus securing the several fragments and also holding the two articulating surfaces together. The scaphoid was drilled and the trapezial fragments were sutured thereto to secure the articulation with that bone. Magnesium-wire sutures were used. The soft parts were dressed with iodoform and allowed to heal by granulation, which they did in ten days. A palmar splint was used for two weeks, then an adhesive-plaster splint for another two weeks. Passive motion was instituted after the seventh day.

Case 14. Railway brakeman. In making a coupling the hand was mashed, resulting in a comminuted fracture of the os magnum and scaphoid and the pulpifying of the soft parts covering the same.

After cleansing the crushed parts and checking the bleeding, the finer spiculæ of bone were removed entirely and the larger fragments adjusted, as well as possible, to the general form of the normal bones, being held in place by portions of periosteum, ligaments and connective tissue, and by threads of fine tinned steel wire, which were passed through the fragments by an ordinary sewing needle. The hand was supported upon a shaped splint of wire gauze and the hot-water treatment was applied for several days, until reaction had subsided and granulation was well established. The hot water was medicated with calendula.

As soon as the vitality of the damaged tissues was well restored and the parts were well on the way to healing, the hot-water treatment gave way to ordinary dressings of iodoform and moist gauze; the hand being still supported on the wire-gauze splint. The wire sutures were left in the bones and became incorporated in the calluses. Recovery took place in six weeks, leaving a fairly useful hand.

Injuries to the Metacarpal Bones

The metacarpal bones are subject to fractures from direct violence where impact is received upon the palm or back of the hand, and from indirect violence where the force is transmitted through the phalangeal bones as in striking a blow with the fist, in falling upon the closed hand or where the arm is jammed with the hand closed. The several signs of fracture may or may not be present; an x-ray examination will settle the diagnosis in a few seconds.

There may be no apparent deformity and yet be displacement enough to disable the hand. Frequently the fragments are displaced backward and the corresponding finger appears shortened; occasionally the distal fragment is rotated, carrying the finger with it. The relation of the finger to the median line is no indication of the position of the distal fragment. In cases of lateral displacement of the fragments there is more or less crowding and displacement of the

adjacent bones and consequent loss of function of the hand. The head of the fractured bone may be pushed forward, in which event the corresponding finger cannot be fully flexed and the grasping power of the hand is weakened.

In many cases of carpal fracture or dislocation the metacarpal bones are notched or chipped at the base. Should it be impossible to reduce a metacarpal fracture by manipulation or to maintain coaptation by external appliances, there should be no hesitancy in cutting down upon and suturing the fragments. In old ununited fractures suturing, after freshening up the calloused ends, is the most satisfactory treatment. In severe cases of vicious union the bone can be cut or sawed through and sutured in correct apposition, with assurance of relief.

The greatest disability in metacarpal fractures is seen in those cases where the fracture is associated with a dislocation of either the head or base of the bone, thereby interfering with the articulations of the other bones of the hands.

Such conditions are frequently met with in crushing and mashing injuries, and as these are open wounds and the parts freely accessible, the fragments should be replaced, sutured together, and if necessary, to retain them in proper position, sutured to adjacent bones. Silkworm-gut sutures connecting two bones and passing over a joint do no harm and do not interfere with the action of the joint; the necessary drill wound in the adjacent sound bone soon heals, and the additional injury is insignificant compared with the disability sure to follow if such treatment is not carried out.

Fractures involving the articulating surfaces of the bones are not necessarily prejudicial to the integrity of the joint, as many such fractures have been known to heal without ankylosis or with so little as to cause no disability.

A Case of Bennett's Fracture

Case 15. Mechanic. A heavy piece of machinery struck the thumb and obliquely fractured the first metacarpal near the base, producing a *Bennett's fracture* or *stave of the thumb*. (Fig. 8.) Because of the importance of the thumb in the patient's work, the fractured bone was aseptically cut down upon, the fragments were tightly sutured with thirty-day catgut, and the incision was closed and dressed antiseptically. The incision healed nicely in one week and the bone united soundly, without faulty coaptation, in three weeks.

Case 16. Railroad section man. A falling timber struck the back of the hand, fracturing the third metacarpal. The fragments were adjusted without trouble and a slate-pencil splint was applied as shown in Figure 11 and readjusted from time to time as the plaster straps became loosened. The patient was discharged in three weeks.

Fig. 8. Fracture of metacarpal of thumb—"Bennett's fracture"

Case 17. Laborer. In a fight the man was struck with a club or stick on the radial side of the hand between the thumb and index-finger, breaking the index-metacarpal and driving the fragments against the third metacarpal. The fragments were manipulated into position and good apposition was secured, this being maintained by a slate-pencil splint. The splint was kept on for four weeks, when the patient was discharged.

This form of the slate-pencil splint is also used in fractures of the fifth metacarpal.

Case 18. Carpenter. In carelessly using an adz it cut into the hand, cutting diagonally

Fig. 9. Oblique fracture of the second metacarpal

through the second metacarpal bone (Fig. 9.). The wound was cleansed, the two fragments were approximated and drilled, the drill passing through the oblique ends while in apposition, and sutured with magnesium wire. The incised wound was closed, after inserting two strands of silkworm-gut as drainage, and an iodoform dressing applied. After the second day, there being no wound discharge, the drains were removed. A good result was secured in three weeks.

Hand Caught in Cog-Wheels

Case 19. Mechanic. The hand was caught between cog-wheels and the soft parts were crushed with a comminuted fracture of the fifth metacarpal bone in its middle third without injury to either articulation. The wound was cleansed of debris and the fragments of bone were replaced, apposed and strung on tinned steel wire to maintain apposition. (See Case 14.) The hot-water treatment (q. v.) was used for a few days, and healthy granulation was established, when the usual iodoform dressings were applied and the wound allowed to heal from the bottom, the edges being supported and gradually approximated by adhesive-plaster strips.

Case 20. Stationary engineer. The hand was caught in a machine and the third metacarpal bone was fractured; in the effort to extricate the hand the distal fragment suffered a forward dislocation which was quite plain to both sight and touch. An aseptic incision was made over the site of the fracture, the fragments were drilled and a magnesium wire suture was put in. The dislocated head was then replaced and the

Fig. 10. Fracture of second metacarpal with lateral displacement

fragments manipulated into close apposition, after which the suture was drawn tight and fastened. The incision was closed and dressed antiseptically and the hand placed at rest upon a palmar wire-gauze splint. The wound was dressed with bismuth formic iodide as needed, and the patient discharged in five weeks with good finger motion.

Case 21. Merchant. The man fell upon the ice and hurt the hand. What he sup-

posed to be a severe bruise turned out to be a fracture of the fourth metacarpal. The fragments were manipulated into place and correct apposition was maintained by means of small aluminum rods applied in the same

Fig. 11. Dorsal view of coaptation and traction-splint of slate pencils applied to a fracture of the third metacarpal

manner as the slate-pencil splint shown in Figures 11 and 12. The aluminum rods were used rather than slate pencils because they were lighter, smoother, cleaner and less liable to break. Splints were readjusted from time

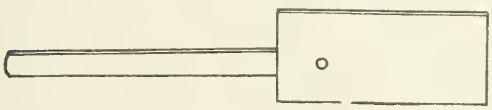


Fig. 12

to time as needed and finally removed at the end of the third week.

Case 22. Mechanic. Some weeks before coming to the surgeon he had fallen and hurt his hand. Supposing the injury to be a bad sprain he had applied liniments, etc., but without relief, keeping at his work the meanwhile as best he could. Suspecting a fracture, an x-ray examination was made, which revealed an ununited fracture of the third metacarpal. The site of the fracture was cut down upon under aseptic precautions, the

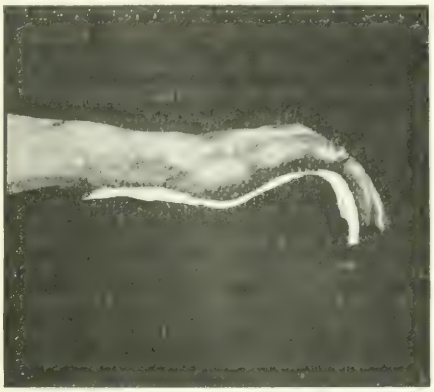


Fig. 13. Marsee splint adjusted for fracture of first phalanx of the index-finger

calloused ends were curetted until healthy tissue was exposed and the fragments drilled and sutured with thirty-day catgut. The wound was closed and sealed with iodoform collodion and the hand dressed in a plaster cast to insure absolute rest and no meddling. The patient was put upon the phosphorus treatment, and firm union was secured in four weeks.

Case 23. Railroad section man applied for treatment for a broken thumb which had been injured the week before and dressed by some surgeon who applied wooden splints. An x-ray examination showed a fracture of the first phalanx and absolutely no coaptation of the fragments. The space between the fragments being filled with callus-forming tissue, it was deemed best not to interfere with the healing process, though the temptation was great to open up the parts, clean out the interposed tissue and suture the fragments in close coaptation. Some weeks later incisions were made on the upper and lower surfaces of the thumb and the sharp projecting edges of the fragments were smoothed off, which made the thumb less painful in grasping and holding and increased its usefulness.

The phalanges are subject to fractures from direct violence and some surgeons admit having seen fractures due to indirect force as a result of forcible flexion of the fingers. Most phalangeal fractures are associated with crushing or mashing of the fingers. The usual symptoms are present to a greater or less degree; doubtful cases can be readily diagnosed by an x-ray examination. The remarks on manipulation, coaptation and fixation of the metacarpal bones apply equally well to the phalanges, but the latter being free from and lacking the restraining and supporting effects of companion bones are more apt to suffer dislocation and to a greater degree. The phalanges are more easily manipulated than the metacarpals but there is more difficulty in maintaining coaptation. The majority of frac-

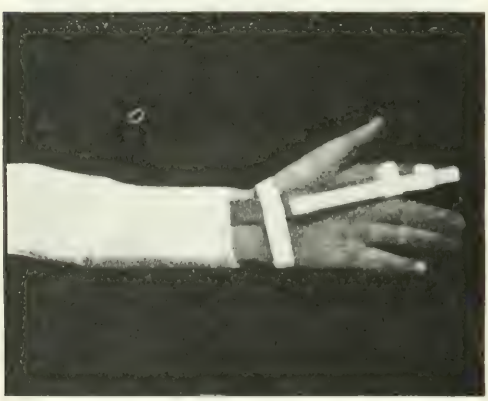


Fig. 14. Marsee splint adjusted; palmar aspect

tures occur in the first phalanx and the fragments nearly always form an angle pointing toward the palmar surface, giving the finger a decidedly "sway-backed" appearance. This deformity is not readily overcome by ordinary splints but can be successfully corrected and the fragments retained in proper apposition by the Marsee finger-splint.

A Splint for Fractured Fingers

This splint (Fig. 13 and 14.) is made of a piece of sufficiently heavy galvanized strap iron, one inch wide by fourteen inches long, the ends rounded and all edges smoothed. This strap should be light enough to be readily bent by the unaided fingers. To one end of this is riveted, with one rivet, a piece of heavy canvas or light leather, as shown in the cut, which gives the splint stability when bandaged in place. When occasion demands its use the splint is shaped to meet the require-

Fig. 15. A splint for the fingers, with sliding attachment

ments of the individual case; for ordinary fractures (and dislocations) of the fingers the proper shape is shown in Figure 15.

It will be noticed that in this particular splint there is an abrupt curve at the place where the splint fits under the first phalanx, it being intended for a fracture of that bone. This abruptness in the curve is the essential feature of the splint, as it overcomes the "swayback" deformity by maintaining the fragments in correct apposition. In shaping the splint it is well to fit it to the corresponding finger of a sound hand held in the semi-flexed position of repose, then add the abruptness to the curve to correspond with the site of the fracture. When ready for application to the fractured finger it is wrapped with gauze.

Splints can be made with the iron straps wide enough to serve for two or three fingers, or the entire group. By heating the iron at just the right place and bending to the suit-

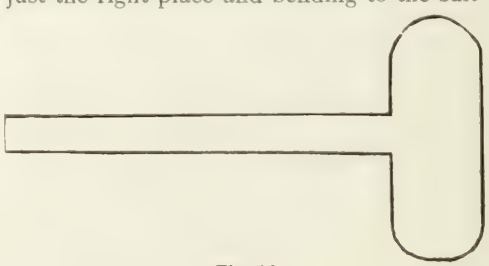


Fig. 16

able angle this splint can be used for thumb fractures. If for any reason it is undesirable to adjust the splint to the palmar aspect of the finger is can be conveniently applied to the back. The leather or canvas attachment is fastened snugly to the forearm, so that the distal end of the iron strap projects an inch beyond the finger, and fixed firmly

in place by means of adhesive plaster. The finger is carefully wrapped in several thicknesses of gauze, adjusted to the splint so that all deformity is thoroughly overcome and firmly fastened there by longitudinal and circular bands of adhesive plaster.

In Compound Fractures

In the compound fractures of crushed fingers where the dressings have to be changed frequently the iron strap can be turned to one side upon its rivet without

Fig. 17. Vicious union in a case of fracture of first phalanx of the little finger

removing the attachments at the forearm; the finger and the splint can be cleaned and unwrapped and the splint adjusted as before. Where it becomes necessary in maintaining correct coaptation to use extension this can readily be made through the projecting end of the splint, the counterextension being secured through the attachments of the forearm. Should there be a later displacement of the fragments which is not easily (or cannot be) corrected by extension, the desired result can be secured by means of the sliding attachments shown in Figure 15. To make these, cut pieces of zinc of the size and shape indicated in Figure 16, giving the body a quarter cylindrical curve to fit the finger and wrap or bend the extension arm around the iron strap as shown in Figure 15. Two or three of these sliding attachments may be needed on each splint to make its use effectual.

In compound crushing injuries it is best to have separate straps for each injured finger, all being fastened to one common piece of leather, as sliding attachments must be applied to each side of each finger, which is impossible if two fingers be bound to one strap. This form of splint may be used in a straight position if the peculiarities of any case so demands.

A Baseball Finger Fracture

Case 24. Clerk. Suffered a fracture of the first phalanx of the ring-finger in a strenuous game of baseball. Some swelling of the finger, which was aggravated by the presence of a gold-band ring. Lateral displacement of the fragments increased the troubles incidental to the ring. To avoid further damage to the finger, metallic mercury was applied to the ring until an amalgam was formed which permitted the easy cutting away of the ring. The fragment of the bone was then coapted and a Marsee splint with lateral attachments

Fig. 18. Vicious union in a case of fracture of first phalanx of the little finger

applied. Patient discharged in three weeks in fair condition and able to attend to necessary further treatment himself.

Case 25. Farmer. Struck on the back of the hand by a falling pitchfork, suffering a fracture of the first index phalanx with angular palmar deformity. (Fig. 18.) The fragments were coapted and a Marsee splint adjusted with a special acute curve at the site

of the fracture to maintain correct apposition and to prevent any "sway-back" deformity. Discharged cured at the end of the third week.

Case 26. Railway brakeman. In unloading freight a heavy box fell on the hand, fracturing the first and second phalanges of the index-, middle and ring-fingers and bruising the soft parts considerably. The fragments were manipulated into good coaptation and a three-fingered Marsee splint with lateral attachments applied, each finger being dressed separately. A hot kaolin poultice was applied and renewed at each daily dressing for three days to prevent and alleviate pain and swelling. From the fourth day until the patient was discharged passive motion was used daily, very slight at first and gradually increasing in degree until good flexion and extension was secured. At the end of the fifth week satisfactory union having taken place, patient was discharged.

Case 27. Railway brakeman. In making a coupling the hand was caught and the middle and ring-fingers crushed with compound fractures of the first and second phalanges of each finger. The wound was well cleansed and the fragments adjusted, drilled and sutured with fine silkworm-gut so as to maintain coaptation. The fingers were then dressed with iodoform, covered with gauze and a two-fingered Marsee splint applied. The hand was dressed daily for two weeks, then every other day for two weeks. Passive motion was instituted on the fifth day and practised daily until the patient was dismissed at the end of six weeks; sutures removed at the end of the third week.

In cases of old fractures coming for treatment, if there be nonunion of fragments there is generally tissue between them and the wound should be opened, the interfering tissue removed, the fragment ends freshened as needed, and the fragments firmly sutured together. Vicious union, with deformity, disability or great pain is sufficient justification for operation, breaking up the faulty union and resetting with sutures and proper splinting to maintain correct coaptation. Where a tendon or nerve is attached to or embedded in a callosity it is reasonable to make an operative attempt to liberate the parts, as a continuance of the attachment or embedment will result in permanent disability, a condition which cannot be aggravated by operation and may be avoided.

Case 28. Well-driver. The little finger was caught in machinery and the first phalanx broken. No proper attention was given the injury and the result was vicious union, with the finger out laterally and at an angle which interfered with the man's work. (Figs. 17 and 18). Aseptically the parts were cut down upon through a dorsal incision, the callus cut apart with a small chisel, the fragment ends freshened and shaped and the fragments brought into correct apposition and relation with each other and with the hand in general. The incision was closed and sealed with iodoform-collodion and the finger dressed upon a Marsee splint with lateral attachments and slight extension. Good union in a normal position was secured in three weeks.

The Nez Percés Indians

Their Story—Written by a Doctor Who Dwelt Among Them

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

Foreword

SOME little explanation, which doubtless will end in an apology, is due the reader for burdening him with an extended series of articles on such commonplace things as Indians; and when the dissertation is confined to a single tribe of Indians, the explanation becomes all the more imperative, more particularly when it is known that the tribe is fast following the bison toward the western horizon bar.

It is owing to the fact that the Indian is fast passing from the stage of human action that it becomes necessary for someone who knew him as he formerly lived, moved and had his being to come forward and tell those things—to record for those to follow in our footsteps the things about the Indian that should be of interest to every man. The single tribe, that of the Nez Percés, is chosen as being a representative of all the western Indians, and for the further reason that the writer knew that tribe better than any of the others.

The reader is earnestly solicited to approach the subject in a sympathetic frame of mind. History presents no more somber page than that recording our treatment of the savage peoples of North America.

From the first piratical expedition of the first Spaniard on down through the development of this country, clear to the tip-end of the last century, the attitude of the so-called Christian nations toward the Indian has been so unchristlike in its character as to bring the blush of shame to the cheek of any man who believes that all men were created in the image of their Great Creator and by Him endowed with equal rights and privileges.

We lifted no hand to restrain the avarice, cupidity and heartlessness of the men who were preying upon the very life-blood of the Indian; and now, that it has been demonstrated beyond the peradventure of a doubt that he is unable to withstand the blessings of civilization and is rapidly drifting with the tide of years out into the great ocean of eternity, to be numbered with the untold myriads that have peopled this earth for their brief span and then passed on to make room for yet other races, we are prone to look upon his passing as only another example of the law of survival of the fittest, and sigh with relief that one equation in man's problem of his duty toward his fellow man is being solved without our interference.

The writer lived for a number of years in close terms of intimacy with the Nez Percés Indians and thus learned many things about them that will forever remain a sealed scroll to the average man. The life-story of the Indians learned from that contact with them, their history gleaned from their own narratives will be set down for the amusement and possibly the instruction of the reader. The narrative will of necessity be rambling and incoherent; the ideas set forth will be couched in unpolished and oftimes crude language. He hopes for it only the merit of being easily understood.

The story will depict the Indian as the writer knew him; if the subject is intrinsically of sufficient interest to claim your attention, then follow where the trail leads, disregarding the many things that will appeal to you as being uncouth and sadly deficient in that smooth rythm and polish with which finished writers are wont to clothe the children of their mind. If the interest is not inherent in the subject itself, then by all means close this book here and forget that the Nez Percés ever existed or that an unsophisticated country doctor ever dreamed he could tell how they existed, for

there will be no charm of diction to woo you on with its siren song.

Early History and Discovery of the Nez Perces by the Whites

The first written record we have of the Nez Percés occurs in the journals of the Lewis and Clark expedition, under date of Friday, September 20, 1805. Early in September of that year the explorers ascended the eastern side of the Bitter Roots, crossed through the Lo Lo pass and descended into the great watershed of the Kooskia. The season of 1805 must have been unusually early—the travelers mention encountering a heavy snowfall in the Bitter Roots, and game was exceedingly scarce. They struggled through the dark defiles of the towering mountains for several days, enduring great hardships and suffering much from lack of food. They were progressing through an unknown land. No white man had ever gone that way before.

Captain Clark determined to take a small detachment of the party and push on in the hope of finding game. With some half dozen of the hardier and more adventurous spirits the brave officer bade adieu to his friends and hurried forward, keeping to the old Indian trail that joins the country of the Nez Percés with that of the Flatheads. For several days they wandered without finding game, excepting a few grouse. At length they came down upon a meadow and found a skinny old horse left there by the Indians to die. They were glad to break their fast off this fleshless equine hanging the remainder of the carcass in a tree for their companions who were following.

The Hungry Explorers Reach an Indian Village

This was the meadow of the Musselshell Creek, and the next day the explorers emerged from the dense timber upon a wide-open plain, or upland meadow, the Weippe of the Indians. Across the meadow, beside a great spring that gushes from beneath the wide-spreading branches of the pines, rose the white skin tepees of an encampment of Indians. The voices of playing children rose from along the banks of the little stream that courses down the plain. It was a welcome sight to the tired, footsore, half-starved wanderers, this pleasant tree-bordered meadow with the soft autumn sun shining down upon it, in such striking contrast to the dark, sunless, forbidding forests through which their journey had led. More welcome than all was the sound of the merry children as they raced down the stream's sandy shore.

It was not long, however, before one of the little redskins discovered the intruders and the race of play became a race for safety. The children ran with all their might toward the distant encampment. One of them, being less fleet than his mates, stumbled in the tall grass and fell. Captain Clark dismounted and ran and picked the child up in his arms. It does not require a great deal of imagination to picture the emotions of this Indian boy as he felt himself grasped in the powerful arms of the strange being who had so suddenly appeared. He felt very much as I suspect we should feel should some Martian explorer suddenly appear and seize one of us. This little copper-hued child had never before seen a man with a white skin and hairy face—to him the stranger was a being from another world, he was to him a Martian.

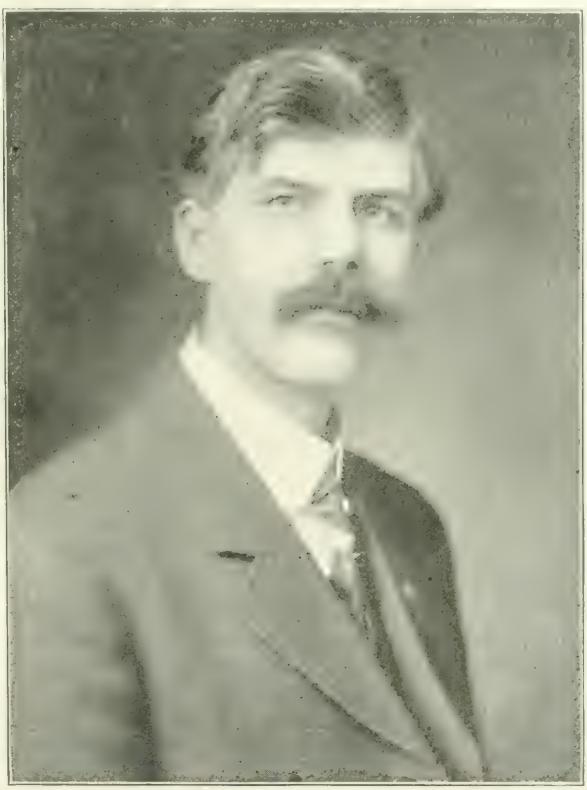
The genial captain carried the struggling youngster back to the caravan and there loaded him with trinkets dear to the savage heart, and turned him loose. The little savage lost no time in scurrying, like a frightened rabbit, to the protection of his ancestral tepee.

When the other boys arrived at the encampment they spread the alarm. The women with their babies, and the younger children hanging about them, hastened to the protection of the deep pine woods which lay behind the camp, while the men seized their weapons and sallied forth in defense of their homes. Meanwhile the travelers were advancing, Captain Clark in the lead, his hands extended in the manner of the Indian peace sign.

Their Safety Due to an Indian Woman

It is said that the explorers owed their protection that day to the presence in one

of the tepees of a woman, Wat-ku-ese, who had been captured many years before by the Blackfeet and by them sold into slavery among the Indians of Canada, where she met with the "black-robes" (catholic missionaries), who had been kind to her. Afterward she was purchased from her captors by the Flatheads and by them returned to her own people. On this day she lay very ill in one of the tepees. On hearing the turmoil in the camp and learning the occasion, she called out to the men to do the travelers no harm as they were the Sooyap-po("Crowned Ones"—from their custom of wearing hats—a term used to this day to designate white people) and they came bearing a message of peace.



CHARLES STUART MOODY

This intelligence, together with the presents brought by the boy who by this time had arrived, served to quiet the apprehensions of the men and they received the explorers with that hospitality that has always marked the bearing of the Nez Percés. They brought them in, placed food before them, and at night gave them a large tepee in which to repose.

This was the first introduction of the whites to the Nez Percés Indians, although it is stated by the old chroniclers that the people must have had some knowledge of the whites before this time. And this must be true, for there are certain words in the language that could only have had their origin among the white people; also a few articles evidently of white manufacture were found among these Indians at a very early period.

Shortly after my arrival among the Nez Percés I formed the acquaintance of an ancient savage known as Hale Moody. I have never been able to trace any blood relationship between us, but the old fellow was vastly pleased when he learned that we bore the same name. He used to say to strangers: "*Pas ke Los Los sikiptuat Moody. Imim Hale Moody.*" (That is the doctor Moody. I am Hale Moody.)

When I first came to know old Hale he was very, very old. How old, he did not know, of course. He was nearly sightless and his knees were so swollen with rheumatism that he could scarcely walk. I gained his friendship and confidence by rubbing his aching joints with chloroform liniment, a treatment that he insisted gave him much relief, and he never failed to hobble over twice a week to have it administered.

So it came about that after I had gained sufficient command of the language to render myself intelligible, this old redskin used to tell me by the hour the legends, traditions and tribal history of his people. Old Hale was a small boy that day when the explorers came—as a matter of fact, he was one of

the urchins playing along the watercourse. Many a time on bright summer days we would sit beneath the shade of a giant cottonwood that grew upon the river shore, and the old man would turn his almost sightless eyes toward the sunshine and recite to me those tales.

On yet other days we would mount our ponies (for he was still a good horseman) and ride for miles along the river and up the canyon sides, where he would point out to me the places made historic by the white strangers who came with their message of peace. It was a thrilling little drama, that early settlement of the West, and the Nez Percés took active part in it. Being firm friends of the whites, to them fell many incidents which they treasured and retold for years.

Hale Locates the Place Where the Explorers Came

At one time there rose a controversy as to just where the explorers actually arrived at the Kooskia. I said to Hale, one morning: "Hale, can you tell me the exact point where the Soo-yap-po reached the Kooskia?" "Aeh" (Yes), he replied, "I can and I will. Go with me and I will show you; though you yourself have been there many times. Yes, you have walked over the very spot where the white men first camped and have rode the same trail the first white men traveled, though it is an old trail and now we use it no more."

We mounted our ponies and rode up the sandy river shore to a point something like a mile above where the town of Orofino now stands. There the river cuts through a gorge, leaving an island in the center of it. This island was (for it is there no longer now) about five acres in extent and lay at the foot of a deep, still pool where the waters collect for their mad rush through the gorge. We rode over the steep cliff that frowns above the boiling water and came down to the river again above the island. A dim old disused trail winds down out of the hills and terminates at the edge of the pool. Here old Hale halted and painfully dismounted. He seated himself beneath a pine and filled his pipe. For several minutes he smoked in silence. I had grown familiar enough with Indian characteristics by this time to avoid breaking his reverie. After a time he spoke.

"It was just here," he said. "I was with them when they came. The camp of Twisted Hair, our chief, was yonder on that island. It was in the month of huckleberries, and our people, some of them, were camped on the Weippe to be near the berry fields. When the white men came out of the deep woods and we saw them where we were playing, we were much frightened and ran; but they were friends, we soon found, and not like the Blackfeet, who often came to do us hurt. The women were afraid, too, and all ran away. There were only a few men. But our men are brave, so they went forth to meet the strangers, with their bows in their hands.

"Yes, it was Wat-ku-ese that told us who the men were, although she thought they were the 'black-robes,' which was not true. They were greater than the 'black-robes,' for they came from the Great Father. When night came the women crept back from the woods and we all stood about the fires watching the white men eat and smoke. That was the first time I had ever seen men smoke and it was strange.

"The next day we all came down here to where Twisted Hair lived. This was the place and not the Lo Lo, as some tell you. Twisted Hair came over with his canoe and took the strangers to his camp. It was the season of low water, and the travelers made their horses cross the water just up yonder where the water breaks over the rocks. That is where our ponies always crossed, and do still.

The Presentation of the Medal

"In a few days some other white men came, and the next day Twisted Hair sent forth the runners and they called all the people together for a great 'talk.'

"In the talk the last white man who came gave to Twisted Hair a coat, a flag and a medal (the old man said "a piece of white money") and told him that all these things were for peace and friendship between the

whites and the Indians forever, and to show the flag and the money to any white man, and it would be a talisman for our protection. They agreed to help us in our battles against the Blackfeet and never to hurt any of us for all time."

I had heard rumors of this medal for several years and tried to learn from the old man what had become of it, but he would not tell me, if he knew. I afterward found out and recovered it—an interesting incident which will be told in its proper place.

The Expedition's Primitive Shipyard

Not many days after this we were again talking about the visit of the explorers, and I asked Hale if he knew where the canoes were built in which they sought the western ocean. "Aeh," he replied, "all Nez Percés know that. Some day I will show you."

A few days later I overtook him riding along the river trail below where we lived, singing "The Wolf is Come," a sort of Nez Percés national air. He knew me, as I rode up behind him, by the sound of my horse's hoofs in the trail. Without turning his head he spoke: "I am glad, Sikiptuat, you have come. I was dreaming of your people. We will now go to where the white men made their boats—such large boats, and they made them with axes and saws so quickly. In two days they made a boat that would have taken our people moons to make. But they were sick at that time, were the white men, all of them. There was one black man, and he was not sick. That was strange. Why should not the black man become sick too?" As he asked this question he turned to look at me. But I could not answer.

We rode down the south river to a point something like a mile above where the Kooskia joins it and crossed over at an old ford where the stream widens out and ripples over a reef of rock. As we mounted the steep bank on the south side, Hale looked back at the water and said: "It was here they crossed, and down yonder is where they halted to build their canoes. Let us go."

We rode down the pleasant slope that borders the river to where a dense grove of pines stood nearly touching the water. Below them lay a long, narrow sandbar with scattering timber covering it; a lagoon half transformed the sandbar into an island. Hale rode to the foot of the bar and looked about for a minute, then turned his horse and rode toward the mainland. He halted upon a level plat of ground sheltered by an immense pine. "Here," he said, "is the spot where their camp stood, and up yonder stood the trees that were cut down to make the canoes."

I dismounted and scrambled up the steep hillside through the dense undergrowth until I located three immense yellow-pine stumps, all rotted excepting the resinous core. That these were the identical stumps I am very much in doubt, though it did not require a wide stretch of imagination to believe them to be. At any rate, I stood upon the ground made famous as being the shipyard where was constructed the flotilla that sought the western ocean where today float the argosies of a world. With a civil-engineer friend and an instrument we afterward took the latitude and longitude and verified the old Indian's statement as to where the craft were constructed.

The Engraven Pine Trees

On our way back, that day, Old Hale halted beside the river on the north side and pointed to where the water had cut away the bank by being forced against it by an immense slipped rock lying opposite.

"It was here," the old man said, "that two trees once stood with writing on them. When the white men were ready to depart, on their return journey, they made writing on two large pines that stood near the shore, right here, and told us never to touch them. We never did. They stood there for many snows, until one time a great mountain of rock came down over yonder and the river moved over here and washed them away."

It seems singular that the explorers make no mention of these trees in their journals, but that they were there is attested by many of the very old white people who have lived among the Indians for years. Uncle James Holt, whose wife is a member of the tribe,

recalls the trees very well, as he does also the slide that caused them to be washed away.

Old Hale never embraced the Christian religion and died in his pagan faith, which, allow me to suggest, fits the Indian character much better than does the Christian belief. We found him, one day, sitting beneath a thorn tree that grew beside his spring, his face turned toward the sunset, his soul flown, let us hope to that land where he could meet with his people who had gone before.

The Treatment of Whooping-Cough

A Review of Twenty-three Years' Experience

By W. F. RADUE, M. D., Union Hill. New Jersey

IN undertaking to discuss the treatment of whooping-cough I am well aware that this subject has been written about again and again; but nevertheless it will bear repetition, especially for the young doctor just out of college, although by no means this subject is of less importance for some of the older members of the profession. For in these days of progress in positive medication it is necessary to keep abreast of all and everything of importance for alleviating and curing disease.

In my experience of twenty-three years as a general practician I have treated thousands of cases of whooping-cough by every available means. When I started out to practise, the remedies for this affection were belladonna, bromides, nitric acid and horse-chestnut. These remedies had very little or no effect in controlling this disease, the only one of any value being belladonna.

Later on I used quinine, bromoform, phenic acid, and steam impregnated with creolin and thymol. Of these the phenic acid was best. Bromoform never did any good in my hands; in fact I found it a dangerous drug to use and discarded it altogether. Finally I got to using antipyrin and croton-chloral. In one very rebellious case I was forced to use chloroform inhalations for the external treatment. I have used the various sprays of solutions of cocaine, quinine, resorcin, benzol and antipyrin. Of the latter I found resorcin and antipyrin to act best for checking the vomiting. Internally I found dilute hydrocyanic acid very effective. For the after-coughs, when the real disease was cured, I got good results from 1-2 to 1-grain doses of alum four or five times a day, for a year-old child.

Special Indications and How Met

However, during the last ten years I have had experience with many drugs, particularly the active principles, besides calcium sulphide and calcidin, and others. Following I give a list of the drugs I found beneficial, and the indications for each, namely:

For tight, harsh and dry cough: calcidin, apomorphine, emetin. For nervousness: codeine, cicutine, hyoscyamine. For the parasitic element: calcium sulphide to saturation. For catarrh: helenin. For spasm: monobromated camphor, atropine, hyoscyamine. For viscid sputa: scillitin. As a stimulating expectorant: ammonium carbonate, apomorphine, emetin. For functional heart trouble: cactin, digitalin, sparteine, strophanthin. For hemorrhages: ergotin, hydrastinine, stypticin, tannic acid, gallic acid. For stimulating the appetite: quassin. For debility: brucine, strychnine arsenate, iron arsenate, combined with nuclein. Among all the foregoing remedies will be found many that are useful, some of doubtful therapeutic value, while a few, if used early enough, will be found to have a specific action if pushed to full effect or dose enough.

My Most Successful Treatment

As for my own most successful treatment of this disease, I will quote from the chapter

on whooping-cough, in my book on "Diseases of Children," (page 44), as follows:

"For a child five years old begin and clean out, clean up and keep clean with calomel and saline laxative if deemed necessary. Keep the bowels free from toxins by giving the intestinal antiseptics in solution three times a day in dose enough to remove all odor.

For the abortion or cutting short of this disease begin by putting five granules of 1-250 grain of atropine sulphate into twenty-four teaspoonfuls of water, and give a teaspoonful four times a day or oftener until you get the dilated pupil, or in other words, its physiological effects; then reduce to the proper dose to maintain this effect. Put into another glass twenty-four teaspoonfuls of water and add twenty-four 1-6-grain granules of calcium sulphide. Of this give a teaspoonful every hour until saturation, then reduce but still keep on giving it to maintain its full effect in the system."

DR. W. F. RADUE

Keep up this treatment until your patient is cured. In the beginning of the treatment, if the patient has a hard, distressing cough, you may add calcidin to the above treatment, for a few days, so as to loosen up the cough. Then stop the calcidin and give apomorphine in emetic doses every two or three days, if necessary, so as to get rid of the excessive mucus; but this will be found necessary but rarely if treated with calcium sulphide to saturation.

As a local wash I find two menthol-compound tablets in a cup of water excellent as a spray; for the nose and throat this may be applied every two hours. For those who have a room to spare, I should advise that this be set aside throughout the disease for the sick-room, stripped of all unnecessary furniture, and fumigated with sulphur candles every morning, and aired out in the evening. This will greatly aid in its cure. In favorable weather the patient is to be kept outdoors all day, while for those that can do so, a sojourn in the country or at the seashore is excellent. For fever give aconitine, and if complications arise, which will seldom occur under my plan of treatment, it will be self-evident that they must be treated accordingly.

Success?—Not Always

What Experience Has Shown Me About Failures

By GEORGE L. SERVOSS, M. D., Fairview, Nevada

DURING the past three or four years it has been my pleasure to report a few of my successes through CLINICAL MEDICINE, and some of my brother practicians have asked me whether I have always met with success in the use of the active principles. When I have had a full history of a case, yes. On a few occasions, when the entire truth had not been forthcoming, no. But this has not been due to the insufficiency of the active principles; for when I adjusted the history to the truth and then applied the proper agents to the conditions as they actually were instead of what they were said to be, I have seen but few failures.

Chronic Myalgia—and Alcoholism

I have in mind a case of chronic myalgia in which the muscles of the back were involved and in which laboratory tests showed acidemia, where treatment produced some improvement but not full recovery. This patient, in reply to questions, told me that he used very little if any alcoholic liquors. I based my treatment on that as a fact. Later I found that he did use such liquors, and when he reproached me because of my non-success in his case, I informed him that he could anticipate no results of a satisfactory nature as long as he continued to indulge in alcoholics. He concluded that I might be right, and after withholding from such beverages for a time, sufficient for me to overcome the acidemic condition, success followed in what at first looked like failure.

Misinformation Leads to Failure

Recently a gentleman came to my office and consulted me about his wife. He said that she had a baby three months previously; had been well for about six weeks after the birth of the child and while still in California at her old home, but after returning to her home in Fairview and assuming her household duties she began to weaken, and for several days prior to this she had been having fainting "spells" and seemed to have no energy to go on with her work. The husband said that the warm weather seemed to augment this abnormal condition. I questioned him closely as to her condition otherwise, but could get nothing further, which led me to suspect that this was nothing other than a case of lack of tone, due to a combination of rather hard work, nursing one baby and taking care of two other children not much more than babies. I asked him as to her condition following other pregnancies, and he said that she had always been well, both before and after the birth of the children. At this time he said nothing of any actions on the part of his wife which could have been construed as out of the ordinary.

For the conditions pictured I put the patient on the triple arsenates with nuclein, and for a slight constipation, which the husband spoke of, I gave the phenolphthalein compound. For several days I heard nothing further of the case, and presumed that everything was progressing nicely, when one morning I received a hurry-call, to which I responded within half an hour.

On my arrival at the house I found the woman propped up in bed eating breakfast, seemingly in normal condition. The husband informed me that she had wanted to get up at the regular hour of half past five, but as he had no work to do he wanted her to stay a little longer, and from her story as well as his own, he used gentle force to make her remain in bed. I understood, from what both said, that she became excited and angry, and when I saw her, her pulse was still accelerated, this being the

only apparent symptom that there might be anything out of the ordinary.

"Those Spells" Prove to Be Insanity

No further history was obtained at this time, although I made it a point to ask questions as to what had happened. The husband said that she had had another of those "spells," and I presumed that he meant the sort he had described in his previous interview. I told them to continue the treatment as suggested at first. Later in the day, as I heard a day after, she had more "spells," but I was not called. That night she had still more "spells," also some on the following day, but at no time was I advised of such condition or called when the spasm occurred. Consequently I did not see her excepting when everything was apparently normal.

On the evening of the second day after my morning visit a doctor was called from an adjoining railroad town, the idea of calling him being to have someone to take her to the railroad and start her for her California home. This practician was told the real truth, namely, that the woman had been acting queerly for several weeks and that, instead of fainting, she had been having spasmodic fits from time to time and that her husband was fearful that she was becoming insane. She was taken to the train the following morning, after which the nurse in charge gave me a complete and truthful history of the case. Then I readily saw wherein I had failed of success. Here was a case for cicutine and other sedatives rather than excitants like strychnine. Hyoscine was indicated, as were the bromides or solanine; but not having the correct and truthful history of the case, I based my line of treatment upon wrong conclusions, and naturally met with signal failure.

Get Down to the Bottom—to the Truth

These are two cases, both of which convey lessons which no practician should overlook. They have taught me never to come to any conclusion until I have either seen the patient or pinned him down to the absolute truth. In the first case, when I had discovered that the patient had lied, and when I had shown him that if he continued in the use of alcoholics he need expect but little if any improvement, failure was followed by success. In the second case I learned not to pass over fainting "spells" without questioning closely as to their absolute character.

In neither of these instances did the active principles fail of action. In the first they were partially satisfactory at all times, and wholly so after other conditions, opposed to their action, were removed. In the second case the remedies were active in augmenting the already existing conditions, as the strychnine in the triple arsenates was contraindicated under the actual state of affairs. I have had other cases, similar to the last one mentioned, in which the whole, the truthful history was given, in which cicutine and hyoscine gave the desired results; and I believe that had the absolute truth been forthcoming I should have obtained satisfactory and immediate results in the case in question had I not been working in the dark.

DR. GEORGE L. SERVOSS

The outcome of cases like the one last mentioned is a thing that not infrequently

works a hardship upon a doctor, as the layman is prone to base an opinion upon what he hears of the case and not upon the truths as they exist; and the practician would better spend a little time getting a full and truthful history, rather than take the word of anyone as to existing conditions.

I will add that the patient was kept in the railroad town for a few days and steadily grew worse, but immediately upon her return to California and her relatives there was a change for the better, and I have recently heard that there has been a complete recovery. I believe that this case, upon information gained from outside sources, was one of assumed mania. The woman did not like life in a Nevada mining camp and wanted to go back to her old home in California, and knowing that there was such a thing as postdelivery insanity, she simulated that condition and gained her ends thereby, as my informant regarding her condition after returning to California informed me that she had required but little medical attention to bring about improvement, if not complete recovery. Nevertheless it was a failure on my part, and I accept it as such, and would warn other, and possibly younger, doctors always to look closely to the complete and truthful history in every case coming under observation. I would say, in passing, that I had no previous acquaintance with the patient and consequently did not see that her actions were other than normal, while I was not advised to the contrary, either by her husband or the nurse.

Circumcision

How to Perform It Under Local Anesthesia

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois
Professor of Principles of Surgery and Clinical Surgery, Bennett Medical College; Consulting Surgeon, Mary Thompson Hospital for Women and Children; Attending Surgeon, Jefferson Park Hospital.

EDITORIAL NOTE.—The surgery that the general practician can do himself, in his own office, under local anesthesia and with a minimum of after-discomfort is the kind in which he should have the maximum of interest. This is the kind of surgery which actually pays him—and not some one else. This is the kind of surgery that Dr. Breakstone is teaching, using simple language, explicit directions as to technic, and beautiful illustrations which make the details plain. This paper on "Circumcision" will be followed by others on equally interesting and important subjects.

THERE is perhaps no operation so beneficial to humanity as circumcision ("History of Circumcision," by Remondino), yet I have rarely seen this operation perfectly performed, even by surgeons of more than ordinary reputation.

The old operation as laid down by Moses consisted of three steps, viz.: "Chituch," or cutting; secondly, "preah," or tearing back the mucous membrane; and "metzitzah," or control of hemorrhage. I think it is worth while to be acquainted with this operation as it is done by the "mohelim" (Jewish circumcisers).

The first step is done with a sharp, razor-like knife, which knife must be especially prepared, and must be smooth, so as to cut smoothly and almost painlessly. The "mohel" takes the foreskin with the thumb and index-finger of the left hand, while with this knife, or "cholef," as it is called, he cuts off the prepuce from the dorsum of the penis downward and forward with his right hand, in an oblique manner, so as to avoid injuring the frenal artery. Then with his two thumb-nails he takes hold of the dorsal part of the remaining mucous membrane which still covers the glans, and

in the median line tears this membrane back with his nails to the corona glandis. Then, as the third step of the operation (which was formerly done by the operator sucking the blood with his mouth, and later with a glass tube, and still later with a glass tube to which was attached a rubber bulb), the blood is drawn, with sponges, from the wound so as to prevent edema, and at the same time the cut ends are washed by this blood and in that way any infected material is removed. In many countries this part of the operation is prohibited by law to be done with the operator's mouth, and the up-to-date "mohelim" use, for this purpose, sponges dipped in an aseptic solution.

DR. BENJAMIN H. BREAKSTONE

It is remarkable to note here how very few infections follow this operation as performed by these "mohelim," even though it is done without any regard to asepsis. Their results, however, are much better than those obtained by most surgeons for the reason that these "mohelim" are better acquainted with the anatomy of the part and the technic of the operation than are most surgeons.

A circumcision, to be perfect, must give such a result as will make it impossible to reproduce the foreskin, even by manipulation. Most patients, after a circumcision, have redundant skin at the frenum, and such is the case in many instances even after the operation has been performed by "mohelim."

The most intelligent people very often have "mohelim" circumcise their children rather than have a surgeon do it, although a surgeon should be more competent. The reason for this is that our colleges have been so occupied with laparotomies and other major operations that it is beneath the dignity of our average professor of surgery to teach circumcision; and thus discredit is thrown on the ability of our whole profession

That many circumcisions are imperfectly performed, even by "mohelim," was proven at the time when the Jews were driven from Rome.

The only sign of recognition of a Jew then was his circumcision, and many Jews were enabled by manipulation to reproduce the prepuce, and so escaped expulsion.

Many patients who require circumcision do not have it done for the reason that they cannot remain away from their occupation, and for the further reasons that they fear the anesthetic and the pain. However, this operation can easily be done at the physician's office without causing pain, without a general anesthetic, and without loss of time, on the part of the patient, from his occupation. I will not, in this place, discuss the indications for circumcision.

The Avoidance of Pain

The first essential in posthectomy is the avoiding of pain, and for this purpose cocaine

is employed. The penis is asepticized in the usual way, then a rubber band is placed rather tightly at the root of the penis, to control hemorrhage and to prevent systemic absorption of cocaine, as is shown in Figure 1. Then a sterile towel is placed on each side of the penis, and the two are pinned together so that nothing is exposed save the penis alone. The cocaine is then injected round about the middle of the penis, at right angles to the long axis (Fig. 2), so that

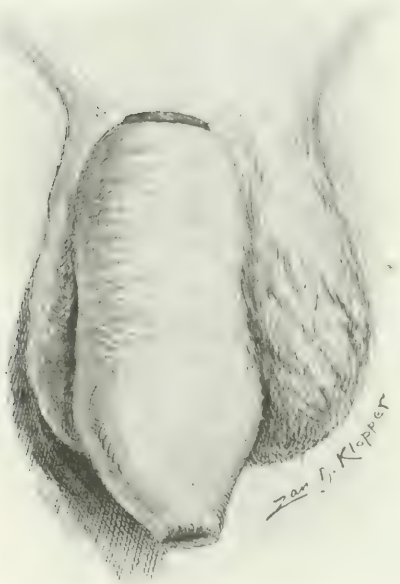


Fig. 1. Showing rubber band at base of penis acting as Esmarch constrictor to prevent hemorrhage during operation and to prevent absorption of anesthetic solution

when cocainization is complete there will be a ring of edema around the middle of the organ, as is shown in Figure 3. The most pain is felt at the frenum, so that the next step is to inject a little cocaine deeply into the latter.

The amount of cocaine used varies from two to five syringefuls of a 2-percent solution, and hence the number of punctures made varies from two to five. The cocaine is drawn up into the syringe, the air is expelled, and then a puncture is made just beneath the skin, the needle being pushed in its entire length. Then, as the needle is withdrawn, the piston is pushed down so that half of the cocaine solution is emptied gradually beneath the skin. Then, as the point of the needle comes near the surface,

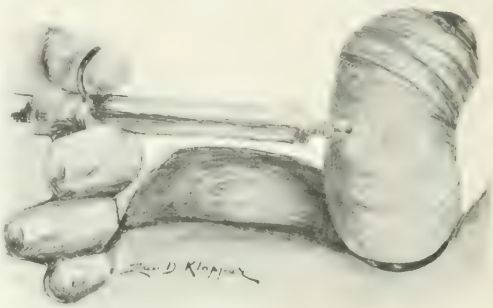


Fig. 2. Showing where and how to introduce hypodermic needle with anesthetic solution

the needle is pushed in the opposite direction and the remainder of the contents injected in a similar manner there. After two or three such injections, sometimes perhaps four or five, there is a complete ring of edema around the penis as shown in Fig. 3.

Now, while the cocaine is taking effect, which is in from fifteen to twenty-five minutes, the instruments are prepared and the surgeon again asepticizes himself in the usual way, avoiding the use of any strong

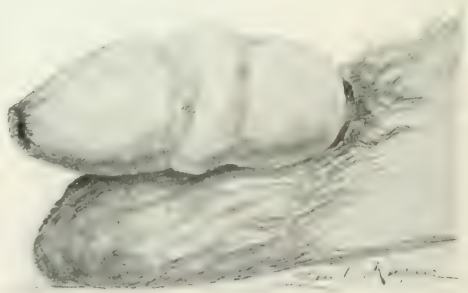


Fig. 3. Showing area of edema around middle of body of penis after introduction of anesthetizing solution

antiseptics. I myself usually use boric-acid solution or normal salt solution, finishing up with alcohol. The same procedure is gone through with on the penis.

The instruments required are scissors and needle. Sometimes a tissue-forceps (with-

out teeth), and for beginners a V-shaped clamp or guard, is useful to prevent any part of the glans from being injured. The forceps-clamp should never be used unless the parts are cut off on the side nearer to the organ, for otherwise the edges of the wound will be lacerated and irregular, and will not heal readily. This is also a cause for edema and infection following the operation. It is well to have ready several artery-forceps.

First Steps of the Operation

The prepuce is taken with the thumb, index- and middle finger of the left hand, and if a guard or clamp is used, it is placed in the V-shaped slit and then, with a knife or scissors, is cut off. If a clamp is not used, the prepuce must be pulled away from the penis and the scissors hugs the fingers of the left hand as it cuts the prepuce off obliquely

Fig. 4. Prepuce, held with thumb and index-finger of left hand, pulled away from glans, and scissors hugging fingers and cutting obliquely downward and outward

downward and forward from the dorsum, as shown in Figure 4.

The skin remaining then recedes back of the glans and the latter remains covered by the mucous membrane, as shown in Fig. 5. Then, with a scissors, the mucous membrane is slit on the dorsum in the median line back to within one-eighth to one-fourth of an inch of the corona glandis, as is shown in Figure 5.

Fig. 5. Skin has receded back of glans; median slit in mucous membrane to corona glandis

Next the mucous membrane is trimmed all around the penis to within one-eighth of an inch of the corona glandis, except at the frenum, where, to avoid injury of the frenal artery, a little triangle is left which is one-

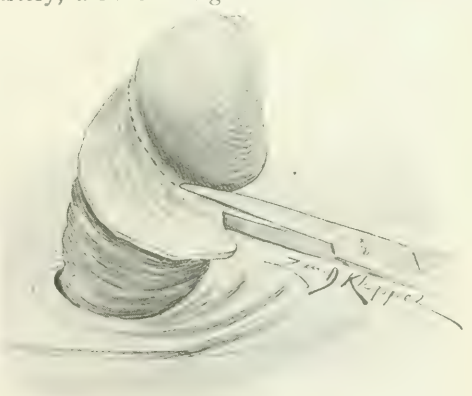


Fig. 6. Method of trimming mucous membrane all around glans, parallel to and within one-fourth inch of corona glandis

fourth to one-third of an inch in its altitude from the median line of the under surface of the corona glandis, as shown in Figs. 6 and 7. Only just so much of the mucous membrane should be left as is necessary for the sutures to take hold. If we leave too much mucous membrane the entire prepuce may be re-

Fig. 7. Mucous membrane and skin ready for suturing; also triangle left at frenum

produced by manipulation. If, however, less than one-third of an inch is left, then it is impossible to do so.

Putting in the Stitches

To perfect our coaptation between the cut ends of the remaining skin and the mucous membrane, a corresponding triangle is excised from the under side of the skin, as is shown in Figure 7. Then horsehair stitches are used for coaptation. These sutures must not be tied too tightly.

The number of sutures used varies in different individuals. In very young children not more than two or three are necessary. In adults from eight to fifteen is the usual rule; but a sufficient number should be put in to insure perfect coaptation (Fig. 8).

Fig. 8. Showing sutures applied

Horsehair is used because it is easily sterilized, not easily infected, is quite elastic, and never cuts through unless by very great tension, as post-operative priapism. In very young children catgut may be used so as to avoid removing the stitches later. In adults, however, this is not advisable, owing to the susceptibility of catgut to infection and the too rapid absorption, especially should erection occur. It is well to have prepared some fine catgut (No. 1 or 2), so that if perchance the frenal artery is cut, it may at once be ligated.

After the sutures are all applied, with the exception of one, the rubber band is removed and the wound is allowed to bleed freely for several minutes. This sometimes re-

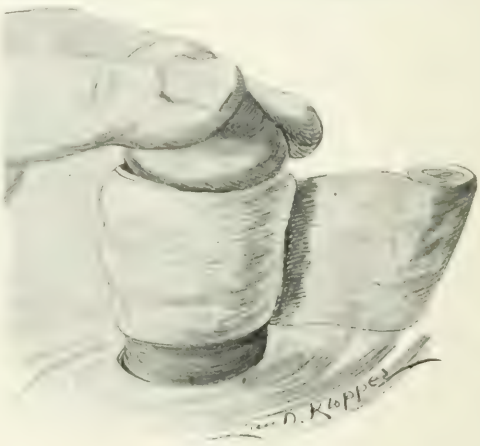


Fig. 9. Method of dressing wound

quires manipulation from the root of the penis forward with sponges wrung out of very hot boric-acid solution. When the bleeding has entirely ceased and the edema due to the cocaine solution completely disappeared, the wound is powdered with boric acid or any aseptic powder. Then, while the tip of the glans penis is held upward with the thumb and index-finger of the left hand, a sterile one-inch gauze bandage is applied from the tip of the glans penis to the root snugly around the entire penis, leaving the meatus exposed (Fig. 9). Next a narrow strip of adhesive plaster is wound around the outside of this bandage so that it will keep it in place. This allows the patient to urinate without soiling the dressing. In children vaseline is applied around the edges

of this dressing to prevent urine from saturating it. In adults, however, neither greasy nor moist dressings whatsoever should be applied, as such measures are very prone to cause erections.

In some instances there is a little pain after the operation, and for these patients 20 grains of sodium bromide with 6 drops of Magendie's solution is given, to be repeated in one hour if the pain has not entirely ceased.

If the circumcision has been performed in the presence of an acute urethritis, then hexamethylene-tetramine (i. e., urotropin) in doses of 7½-2 grains (followed by two glasses of water) three times a day after meals is given. The wound is not redressed, provided it remains dry, for eight or nine days, when the sutures are removed and a similar dressing is applied, the latter remaining on for four or five days. When that has been removed the patient is discharged.

In my experience, in the past eight years, I have not had a single case of infection, even though the operation was performed for phimosis or paraphimosis due to gonorrheal balanoposthitis or chancroid. Several cases of chronic anterior specific urethritis have been cured by circumcision, and the reason is that a tight prepuce has not allowed complete drainage of the gonorrheal discharge before this operation was performed.

The Prevention of Lacerations in Labor

With a Record of Personal Experience

By W. W. EASTBURN, M. D., Sigourney, Iowa

LACERATIONS of the os uteri occur probably as frequently as of the perineum and are at least of equal importance because more difficult to repair. Occasionally laceration of both occurs in the same patient, which very seriously complicates the case and makes it more difficult to get the best results in repairing the damage.

"Prevention" is better than "cure," and the object of the present paper is in a humble way to call attention to the fact that these injuries occur sometimes when with a little more precaution, a little more watchfulness, and greater readiness to meet emergencies, they could have been prevented. In my limited experience in obstetrical work in the past few years I have proven to my own satisfaction that this is true. In preserving the integrity of the parts, not only the patient is saved a great deal of suffering, but serious complications, the absorption of septic material, and a tardy, lingering puerperium may often be avoided. And we shall have accomplished some good in the world and taken a long stride in the direction of fulfilling the mission of our profession if by any act of ours we save one woman in labor even one single hour of agony—and God knows her suffering on these occasions, modify it as we may, is hard enough to bear.

Modifying the Pains of Childbirth

This brings me to the real subject of this paper, namely, the best method of modifying the pains incident to childbirth and at the same time assist to preserve the continuity of the parts involved. For years past chloroform has been resorted to for this purpose, to a greater or lesser extent, by a large number of physicians, but in my hands it has never been very satisfactory. Often it could not be used at all; then, again, pains would cease altogether for the time being if the patient had received a little more than was intended.

A few years ago the hypodermic anesthetic, hyoscine, morphine and cactin, was introduced, and I noticed reports given out by different physicians as to their experiments in its use in labor. This led me to try it in my own cases, and in nearly every instance with gratifying results. This combination has proven far more satisfactory than any-

thing I have ever tried for the purpose under discussion.

I know there is a wide-spread feeling among some physicians against the use of the hyoscine, morphine and cactin combination for any purpose, but I must admit I do not share this. I find the better way is to give new methods and combinations at least a thorough trial before condemning.

Of course this preparation must be used with caution, like all the potent and pain-relieving alkaloids, and the patient's general condition, especially as to heart action and respiration, be looked to first. But I have never had any bad effects from its use, and I know it has accomplished much good. In almost every instance it has modified the agony and made labor easier to the mother. "Agony" is purposely chosen here, for there is no other term that to me expresses all that these women are passing through.

How to Use the Anesthetic

The way I administer H-M-C on these occasions is somewhat as follows: When the first stage of labor is merging into the second and the pains are growing more and more severe and harder to bear; when the "agony" is developing, if you please, and the patient, especially if a primipara, begins to manifest serious nervous disturbance, then I give from 1-8 to 1-4 of a standard dose, reinforced with 1-100 to 1-50 of either strychnine, nitroglycerin or digitalin. As a result, the patient, from crying, throwing her arms, or tossing about, soon quiets down, sleeps between pains, and behaves in a natural manner. The nervous symptoms disappear and as a rule do not return. The effect of the first dose often lasts three or four hours, and sometimes through the completion of the second stage. If this stage is prolonged unusually, a second 1-8 dose of H-M-C may be given; but often the first dose is sufficient.

Here is where the physician's judgment comes into play, and the patient's condition, and the length of the second stage will decide this point. True, when we thus modify the pains, the uterine contractions do not have quite as much expulsive force, yet contractions continue even during sleep, as will be shown in the advancement of the head downward, by examination from time to time.

Aid Given By the Physician

This is when the good is accomplished, especially in cases of first labor. The head is forced more slowly down against a partially dilated and maybe a rigid os, and on to the perineum. These parts have more time, under the relaxing effect of the partial anesthesia, to expand and to adapt themselves to the new requirements. Great good may be accomplished at this stage by giving manual assistance in the dilation of the parts as the head descends. In this way much can be done toward helping nature to prepare the parts for the delivery of the head. When the head is delivered, and before another expulsive pain comes on, the finger may be passed up posteriorly and hooked into the axilla, bringing the shoulder down over the perineum before the other shoulder passes out from under the pubic arch. For often the perineum will be torn by the shoulder after the head has been safely passed.

These efforts to prevent all the suffering you can, on the part of your patient, and to save the parts, may keep you a little longer on the case; not as long, however, as he must remain who finds himself obliged to repair damages after the rest of the struggle is over. In this connection I may be permitted to adduce one illustration:

An Illustrative Case

Mrs. S., aged 18, of rather slender build, weight ordinarily from 125 to 135 pounds, after a period of gestation of about 320 days (possibly longer), was confined January 31, 1909. This lacked six days of being six months from the time she first felt movements. This was her first pregnancy. Labor began in the early hours of the morning and I arrived about 6 o'clock.

Everything went along about normally, until the first stage was well advanced and suffering and nervousness were well marked, when I gave the first hypodermic of H-M-C —I think 1-4 dose. The effect was soon

noticeable, her nervousness disappearing. She stood the pains well, and slept some during the intervals. I could notice the contractions were doing their work, the head was slowly descending, and shortly after noon dilatation was complete. The head in time gradually began to press upon the perineum and the caput succedaneum to make its appearance in the outer world. Then I began to realize the great dimensions of the head, and I confess I was frightened. It seemed to me the head could not pass without causing a fearful tear, and maybe the whole floor would have to go. All this time the woman was bearing the pains well and resting between. I took notice that toward the end the effect of the narcotic was wearing off, but there was no need of repeating the dose.

After my scare at the size of the head and the firmness of the parietal and frontal bones I put in the time faithfully anointing and dilating the perineum; as the pains came and went, the head advanced just a little farther each time, and the length of time I was able to keep it in the inferior strait helped me very much in my efforts; and by the time the final pain came I was ready for it. When the head was through, it was close work to get the finger up in the axilla of the lower arm, but I succeeded in getting that shoulder over the perineum before allowing the other to pass from under the pubic arch.

Then the tug of war was over, and I myself was surprised at the result. I had succeeded in delivering that little woman of a 16-pound child without even a little tear. A great deal of the credit for this achievement I give to H-M-C.

To sum up, I would recommend H-M-C to those who do not use it, for these reasons:

1. It makes the pains bearable to the mother.

2. By its anesthetic effect it relaxes and permits more complete dilatation.

3. It soothes and quiets the nervousness of the primipara.

I should not want to undertake a case of labor if I could not have H-M-C with me.

A Loose-Leaf Ledger System for Physicians' Accounts

A Simple Method Devised by the Author

By E. GARD EDWARDS, M. D., La Junta, Colorado

IF the average business man kept his accounts as does the average physician, our courts would be running overtime on bankruptcy proceedings, for of all the slipshod, antiquated methods of bookkeeping those followed by the medical profession will easily take first prize.

Not many years ago it was quite the proper thing for a physician to be lax in keeping accounts, a businesslike doctor being looked upon as a curiosity. Like as not, the average physician, when asked for a statement, would scratch his head and say, "Oh well, as a matter of fact I forgot to keep track of your work, but we will call it 'fifty.'"

This was all right for the debtor, but it did not furnish the funds for the boy at college nor provide, after the physician's death, for his family; yet, when the easy-going practician shuffled off this mortal coil, it was wondrous strange to the neighbors that "Doc" Jones left nothing for the sorrowing family except a long list of ledger accounts, which no court of law would stand behind if the debtors chose to dispute —which they frequently did.

A Pressing Need for System

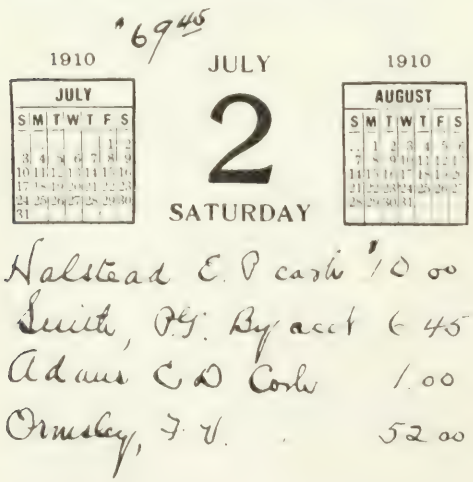
Possibly in time back, when most anything would do in the line of offices and equipment, there was not such a pressing need of

business methods in practice. But now it is different.

No longer can the physician jog around in a one-horse shay; where formerly a 10 × 12 office would suffice the general practician, he must now have three or four rooms, and he needs must be able to say that he has not been remiss in following up postgraduate work, besides a thousand and one other things, which cost money. All these take of the coin of the realm a considerable. So, too, it nowadays costs more to support the family.

Hence it behooves the average easy-going practician to reform his lax methods of charging and collecting and at the same time to have a system of keeping accounts that will consume little time, be acceptable as a legal claim in a court of law, not too expensive to inaugurate, and one that can be kept in an ordinary safe for protection from fire.

To meet this demand, many schemes have been brought to the attention of the profession. Most of these are a combined record and account sheet, or else a combination of intricate cards and desks that are sold at exorbitant prices and have the great objection that they cannot be stored for protection from fire except in vaults.



Memorandum slip No. 1

It is my purpose to outline for my fellow physicians a system of accounting that seems to combine quite a number of the essential features enumerated, while free from most of the drawbacks. It is built up on the loose-leaf ledger system and comprises

1. Memorandum pad
2. Day slips
3. Two loose-leaf ledgers:
   a) For live accounts
   b) For dead accounts

The Memorandum Pad

The memorandum pad is any desk pad such as is in common use. The first leaf is used for a cash slip, and the second as a charge slip. For convenience, the calls are arranged as follows:

First column: Office calls (already appointed.

First column (under ruling): Office calls (new).

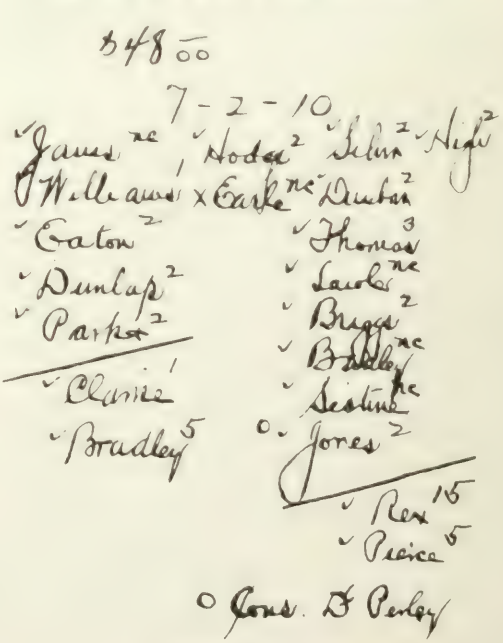
Second column: Office calls (may be in). This column keeps track of such of your office patients as you may have asked to return if not improved.

Third column: House calls (already appointed).

Third column (under ruling): House calls (new).

Fourth column: House calls (may be necessary to visit).

Such a page would look like this:



Memorandum slip No. 2

At the end of the day a check (thus √) shows you have seen the patient. If you have called Dr. Perley in consultation at Jones', you would note "O" at his name on the memorandum pad; and at the end of the day, "O Consul. Dr. Perley $5.00." This, unless Dr. Perley was to render his bill direct to the patient. If not, it would appear against Mr. Jones on your ledger slip, directly under your own charge for the day. James being a case for which one charge for the course of treatment was originally made is marked "nc." Earle called you on the 'phone to report but no prescription was given, and hence no charge, so he is checked with "x." Of your house calls, Barclay and Sistine were seen, no charge being made for the same reason as in the case of James.

1910

$ 48.00 TOTAL $ 101.50

July 2nd.

E. Gard Edwards, M. D.

DEBITS		
James, R.V.	och	nc
Williams, W.	osn	1.00
Ecton, C.T.	os S.Dres.	2.00
Dunlap, D.D.	ow Gyn.	2.00
Parker, E.G.	od X-Ray	2.00

Day slip 1

1910

$ 69.45 TOTAL $ 125.95

July 2nd.

E. Gard Edwards, M. D.

CREDITS		
Halstead, E.P.	cash	$10.00
Smith, P.G.	"	6.45
Adams, C.D.	"	1.00
Ormsley, F.V.	By account	52.00

Day slip 2

After the day's work, your memorandums for the following and succeeding days are made. For instance: James, Williams, Clarke, Eaton, are all entered on the memorandum for the next day's office appointments. Hodge and Bradley may need to return and are entered in the second column. Dunlap and Parker are discharged. On your house calls, you have noted that Silver, Dunbar, Lauler and Briggs are to be called upon at home and that Rex and Barclay may need you again (the visits have been left subject to call). Sistine, Pierce, High, are dropped, your services no longer being needed. Opposite each name on this day you have placed the charge. This being a memorandum only, details are not mentioned.

Day Slips

From the memorandum pad your day slips are made up. These are on cardboard or heavy paper, $4\frac{1}{8}$ by $8\frac{1}{4}$ inches in size. I prefer the latter as occupying less space. Two copies are made, one for the safe and one for your desk drawer. Debits are on one side and the Credits on the other. The slip as finished would read:

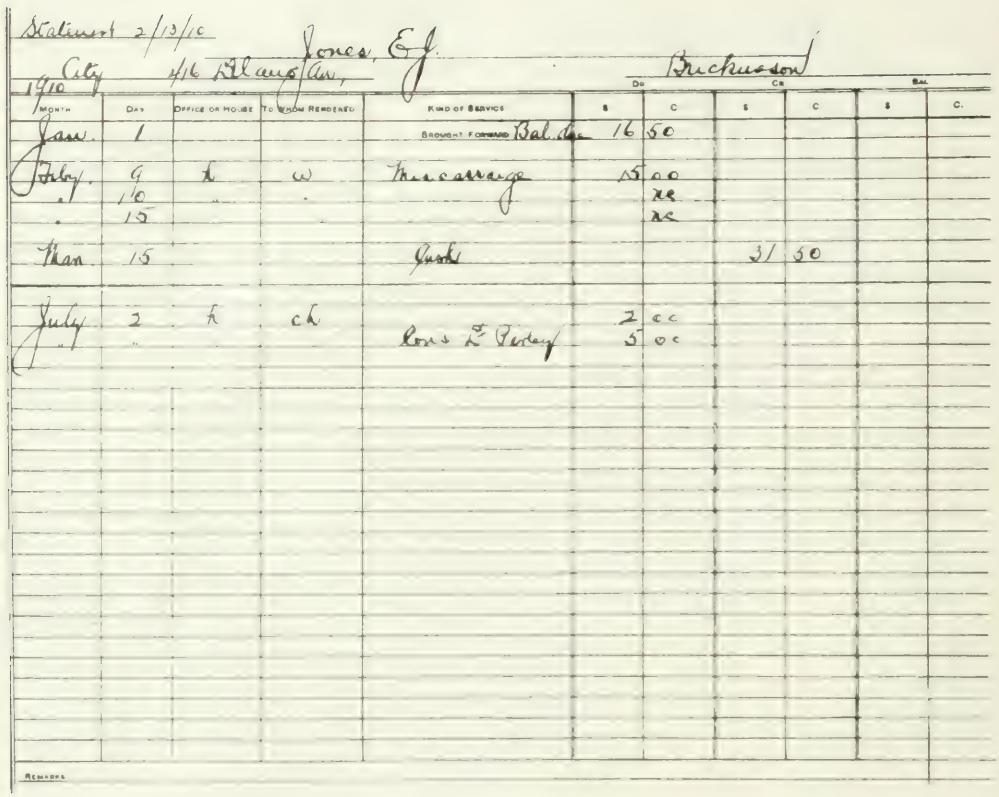
On the day slips these abbreviations are used:

O for office; h for house; s for self; w for wife; sn for son; d for daughter; m for mother; obstet. for obstetrics; x. r. for x-ray treatment; g. u. for genitourinary; gyn. for gynecology; p. e. for physical examination; s. i. for serum injection; e. t. for electrical treatment; spec. for special; n. v. for night visit. Others may be adopted as needed.

Ledger Sheet

Figure 3 shows the ledger sheet reduced, the original being $7\frac{1}{2} \times 11$ inches. This provides for name, address and occupation of the debtor. The notations are self-explanatory.

When an account is closed, the sheet is removed and filed in a desk drawer, marked "Accounts Settled." It is used again should the party open an account anew at any time during the year. On the first day of Jan-


Statement 2/13/10

City 1910 416 Elm St. Jones, E. J. Brickmason

Month	Day	Office or House	To Whom Rendered	Kind of Service	Dr $	Dr c	Cr $	Cr c	Bal $	Bal c.
Jan.	1			Brought Forward Bal. due	16	50				
Feby.	9	h	w	Three calls	15	00				
"	10	"	"	"		xx				
"	15	"	"	"		xx				
Mar.	15			Cash			31	50		
July	2	h	ch	Lens & Pedey	2	cc				
"	"	"	"	"	5	00				

Remarks

FIG. 3. LEDGER SHEET

uary all unpaid accounts are removed and filed in the safe, a new sheet being used, inscribed: "January 1, 19—. Balance Due."

The date on which statements have been rendered can be noted at the top of the sheet, should one so desire, and notations made under "Remarks," as to the patient's credit or financial standing.

In order to keep all accounts in the ledger "live ones," two books are used. In this particular locality I have the "live" ledger with sets of alphabetic index markers under the following heads:

City Accounts
Railroad Accounts
Country Accounts
Out-of-Town Accounts
Notes
Counter Accounts. (Here are kept accounts of such people as have accounts against me.)
Settlement Deferred. (Such accounts as are slow but which I do not care to leave for collection.)

Using such a division of accounts, a sheet can be shifted around from one division to another as change of occupation or residence may demand.

The second ledger is divided as follows:

Suits
Judgments
Disputed Accounts
Collections:
  City
  Out of Town
Address Unknown
No Good

These divisions explaining themselves, they require no further attention.

It will be seen at a glance that no bad accounts, except a possible few in the settlement deferred, are carried on the first ledger—a big advantage to a careful man,

as he can more easily keep track of his bills receivable, in estimating his financial standing at any time.

System Not Copyrighted

Every system yet devised, so far as the writer has seen, is open to some criticisms, but I believe this particular one is of practical value and has a minimum of faults. It has been tested for a number of years, and in my own case at least has proven entirely satisfactory. As this has not been copyrighted, anyone can avail himself of the outfit through any of the loose-leaf-ledger supply houses. The ledgers are not expensive and will last a lifetime. The ledger sheets can be purchased for $7.50 per thousand, and the day slips at $2.50 for 750, this number allowing two sets for the year and a few for waste. The pad is, of course, the usual desk pad, purchasable at any stationer's.

System for the General Practitioner

Practical Advice for the Business Side of Medicine

By J. WILLIAM WATSON, A. M., M. D., South Braintree, Mass.

EDITORIAL NOTE.—Success in medicine depends upon something more than knowledge and technical training. The knowledge must be systematized, so as to be usable; the technical skill must be added to by observation and study. These things involve order in the physician's office, in the collection and preservation of his literature, in the preparation and filing of his case reports, and finally—and by no means of least importance—the keeping of his accounts. Many a man has failed primarily from lack of system. Every doctor needs to make it a study—and it is help along these lines that Dr. Watson offers in the article which follows.

PHYSICIANS are usually the "butt of ridicule" because of their lack of knowledge in business methods. In fact, they are, as a rule, neither practical nor methodical. Now and then we find a brilliant light, but almost invariably learn later that he leaves the profession for the mercantile world and makes his millions. For example, Dr. Pearsons, now a nonagenarian, practised medicine for seven years, sold out (for he and his wife thought that he was fitted for something better than medicine), went into the real-estate business, made his million, and is now having lots of pleasure doing good with it. The mind is bright enough, but it lacks thought and training along these lines. Dr. Bell, the inventor of the telephone, was no business man, but the mind that produced and perfected so useful an article, especially to physicians, was that of a genius.

Medicine a Business as Well as a Profession

The practice of medicine is a business as well as a profession. We sell cures and endeavor to give satisfaction. On these two things our success depends, for our happy patients tell their acquaintances and thus we are quietly but powerfully advertised. There are quite a number of very successful business houses which advertise in no other way.

Every successful person makes a strong point of system. Everything is arranged to go like clockwork. In this way a tremendous amount of work can be accomplished with seeming ease. It would be well for us physicians to visit some of our first-class mercantile houses and see how their business is conducted. Such houses always succeed. It is a "slip-shod," loose method that courts failure.

The general practitioner's hours are so irregular that it is almost impossible for him to reduce everything to a system. He can, however, make out a plan and try to follow it as closely as possible. Sleep and food should be carefully considered. The former is more important than the latter, for one cannot go without sleep as long as he can

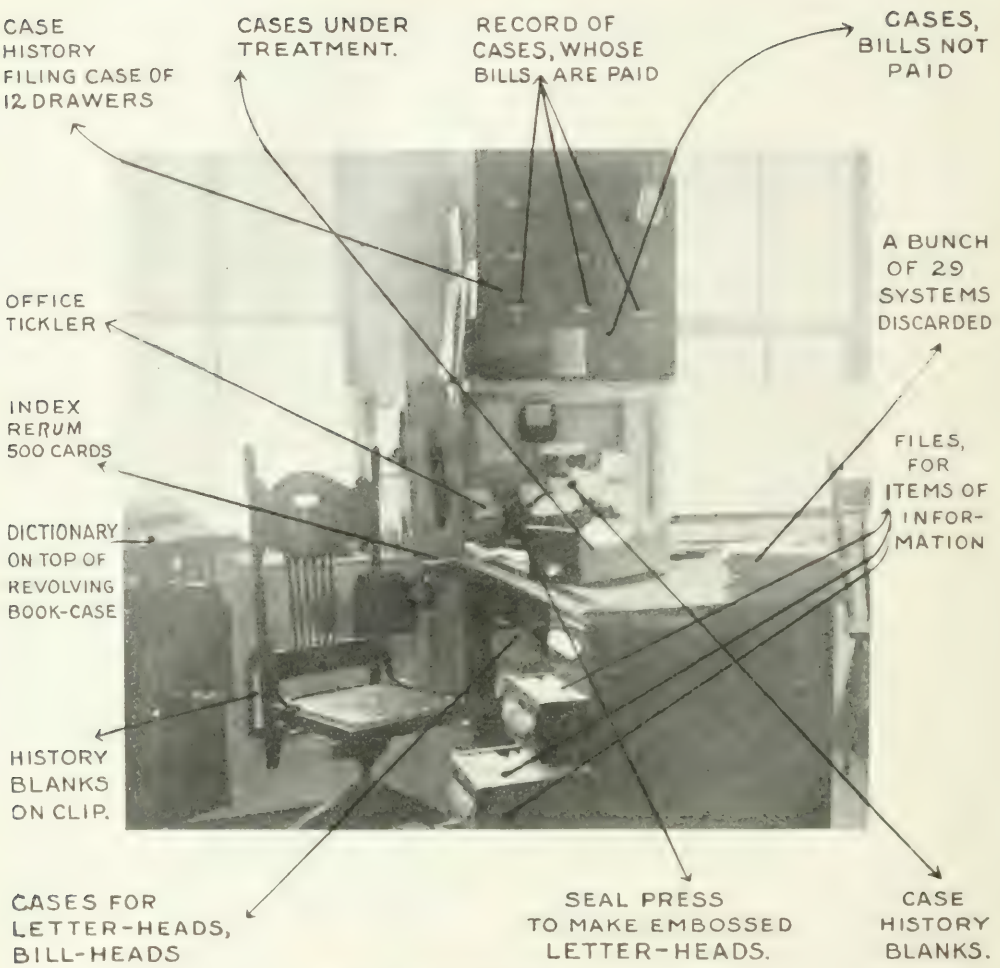

CASE HISTORY FILING CASE OF 12 DRAWERS
CASES UNDER TREATMENT.
RECORD OF CASES, WHOSE BILLS ARE PAID
CASES, BILLS NOT PAID
A BUNCH OF 29 SYSTEMS DISCARDED
OFFICE TICKLER
INDEX RERUM 500 CARDS
DICTIONARY ON TOP OF REVOLVING BOOK-CASE
FILES, FOR ITEMS OF INFORMATION
HISTORY BLANKS ON CLIP.
CASES FOR LETTER-HEADS, BILL-HEADS
SEAL PRESS TO MAKE EMBOSSED LETTER-HEADS.
CASE HISTORY BLANKS.

Fig. 1. Labor-saving arrangement

without food, and this cannot be well digested when one is tired.

Many physicians do their best work in the morning and that, too, on an empty stomach. They claim that in this way they are less apt to contract colds or diseases simply because the blood is not using up its energy to digest the breakfast, but is phagocyting the germs that come to you in your calls. Well, it looks reasonable, but each physician must act on this according to his best judgment. However, these two points carefully considered will do much to preserve health and to make a long and useful life possible.

Elsewhere the physician's equipment has received deliberate attention, but what does this amount to unless he is master of the occasion and is able to meet it with a skilled hand? It is always a good plan to systematize your thoughts. In other words, always picture a case in your mind's eye in its worst-possible condition and think what you would do under such conditions. With such mental training you are not so apt to be nervous and do things that you might be sorry for afterward.

Be Prepared for the Emergencies

The physician must always be ready and on the alert for all emergencies. To this end it is always well to have a hypodermic syringe in your pocket with the necessary

quickly soluble tablets. Where *he* goes *they* must go too. For general work there should be a medicine-case packed with the things that you are apt to need in your locality. There should be an accident-bag always packed and ready for instant use. Most physicians have an obstetrical bag. Its contents should constantly be kept sterile. The wise and careful physician will always sterilize the contents of this bag after every confinement, including with this also the dressings of the accident-bag. Have everything arranged in your office so that you can lay your hands on it at a moment's notice—alphabetical arrangement for drugs and a similar one for your instruments and dressings. Many of these points have been especially enlarged upon from time to time in the various medical journals.

Every business house is progressive. Its knowledge is systematized so that up-to-date methods are easily referred to in properly arranged files. All the details of the business are within reach of the hand. Such labor-saving schemes should be imitated and worked out to the advantage of physicians. In the illustration (Fig. 1) is shown the attempt that I have made along the line of labor-saving devices.

This is the result of ten-years' experience with systems. My only regret is that I did not know of this scheme in the early days of my practice as much valuable information and time could have been saved thereby.

The Office Conveniences

On the extreme left of the desk is an open drawer, with inside measurements of 8 × 3 × 2 1-2 inches containing 500 cards 3 × 2 1-2 inches separated by a 54-piece alphabetical index. This is my Index Rerum. On the top of each card is written a heading, below which is information on that subject. For example, the first card that I pick out reads as shown in illustration.

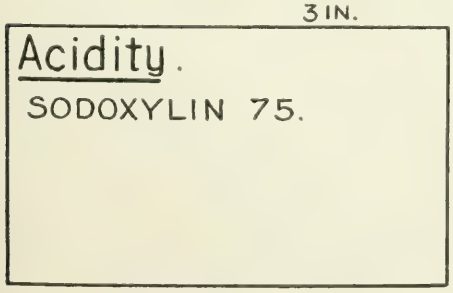


Fig. 2. Index rerum card

This means that sodoxylin is good for acidity. Look in folder No. 75 for the information. Should the same be a book or magazine it would be so stated either on the above card or on another card in the folder. Or the whole matter that impressed you might be put on either of these cards.

The folder is made of manilla tag cardboard, 8 7-8 × 9 inches, and folded once

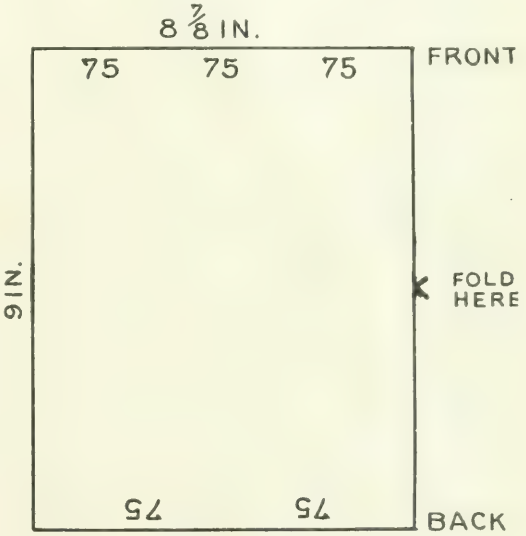


Fig. 3. Folder for index rerum

in the middle, with a clip or a rubber band to hold it together. The folder is numbered as shown in the cut (Fig. 3), so that it can be easily read from both sides.

Every slip, clipping or item bears the same number that is on the folder, so that they can always be returned to the proper folder of the same number. It is a good idea to put similar subjects in the same folder, as a matter of convenience, but this is not necessary as you can put any subject in any folder as long as you know, from your index, where it is.

Preservation of Journals and Articles

It is not always wise to preserve every journal you subscribe for, a better plan be-

ing to cut out articles that appeal to you and file them as above. Journals and bound volumes take up a great deal of room. The above plan will save space and at the same time give you a working knowledge and an up-to-date easy-reference library.

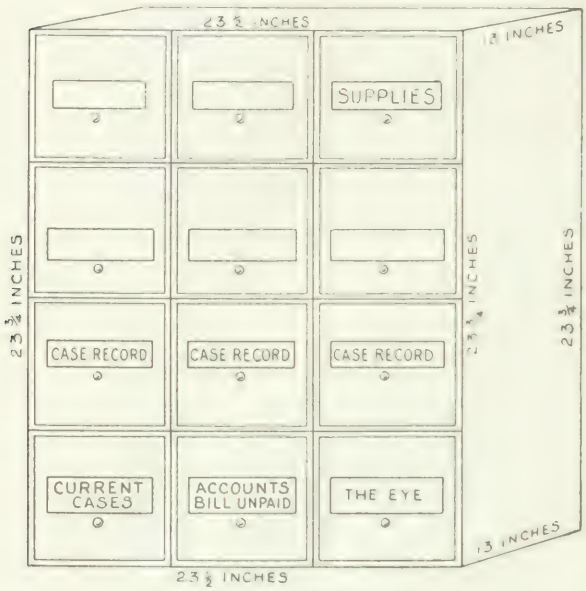


Fig. 4. Filing case

Then, too, many journals ought to be saved entire, and articles referred to from this index. Some publishers are putting out ready-bound volumes of their publication at a slight extra cost. I do not consider this a good idea as it is apt to make the physician careless and wait until the bound volumes come out to get his up-to-date medical information. I rather advocate the idea that every physician should know how to bind his own magazines. It is easy to do and the cost is nothing; and then he has an excellent opportunity to review.

As one reads, it is a good plan to use a colored pencil, marking the articles that claim your attention and note the same on the cover. When the end of the year brings the last copy with its valuable index, my plan has been this. First remove the staples and glue. Take the outside pages with all the advertisements with the index to form the outside cover, or front, of the book. Remove all the intervening advertisements except the very last half in the final number, which is used as a back cover to your bound volume. All this can be done in about half an hour, and anyone can do it for you. In the next act the physician must show a little mechanical aptitude—and it is a poor physician who does not possess this.

How to Bind Your Magazines

Divide the volume in two parts. Beginning with the first copy, be sure that the binding edges are even. Then take four steel-wire finish nails about three or four inches long and drive them perfectly straight at regular intervals through the first copies. Where they come through, mark that as the beginning place for four other nails on the remainder of the copies. Now remove the nails and insert a copper or malleable-iron wire through the two upper, and another piece through the two lower holes, bending them down with a hammer. This makes a solid, substantial volume whose leaves will never come out.

Now for the esthetics. With glue cover the back with cambric cloth (I use black), put on a sticker (after the glue has dried),

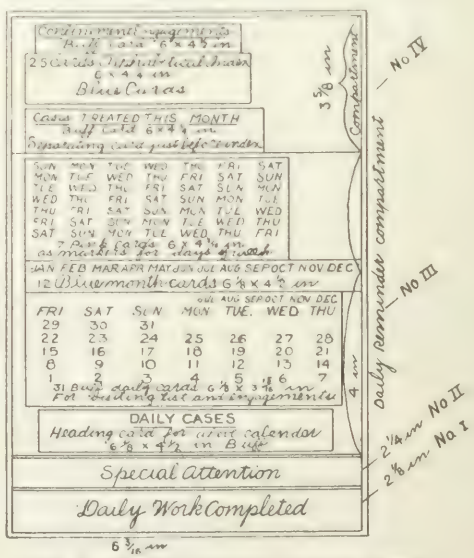

Continued engagements
Buff card 6 × 4½ in
25 cards Individual Index
6 × 4 in
Blue Cards
Cases TREATED THIS MONTH
Buff Card 6 × 4½ in
Separating cards just before sunday
SUN MON TUE WED THU FRI SAT
MON TUE WED THU FRI SAT SUN
TUE WED THU FRI SAT SUN MON
WED THU FRI SAT SUN MON TUE
THU FRI SAT SUN MON TUE WED
FRI SAT SUN MON TUE WED THU
SAT SUN MON TUE WED THU FRI
7 Buff Cards 6 × 4½ in
as markers for days of week
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
12 Blue month cards 6⅞ × 4½ in
JUL AUG SEP OCT NOV DEC
FRI SAT SUN MON TUE. WED THU
29 30 31
22 23 24 25 26 27 28
15 16 17 18 19 20 21
8 9 10 11 12 13 14
1 2 3 4 5 6 7
31 Buff daily cards 6⅛ × 3⅛ in
For ending last appointments
DAILY CASES
Heading card for week calendar
6⅛ × 4½ in Buff
Special Attention
Daily Work Completed
3⅜ in
Continuance
No IV
12 in
4 in
daily reminder compartment
No III
2¼ in No II
2⅛ in No I
6 3/16 in

Fig. 5. Drawer containing "current cases"

label the volume, and some time at your leisure take it to a printer and have the edges trimmed. The leaves will then turn smoothly like any book, and you will be surprised that you have done it so easily. The whole thing requires less than an hour's actual labor, and is a good thing for recreation. The advantages of this method are that it gives you a handy volume ready for immediate use. To the rural physician this plan (evolved in my former country practice) is invaluable. His journals are kept in methodical order and not lying around, and do not come into the hands of the lay population. This also makes quite a saving, while most of the work can be done by the members of the doctor's family.

The books so bound stand up well on the library shelves and are valuable for reference. Any magazines or bundle of papers can be bound in the same manner. Then, with the aid of an Index Rerum as above described the doctor's knowledge is well systematized.

Keep an Accurate Record of Cases

The physician is essentially a public man. People watch his methods and are thereby impressed. By his methods and systems he is advertised. People go to the one who appears to be decidedly interested in their case. This interest is manifested by being able to remember little details and symptoms (very important to the patient) and asking about them at the next interview. This is best done by keeping an accurate record, from visit to visit, of symptoms, conditions and treatment. You will soon have the reputation of knowing all about and carefully watching your patients, and they will be glad to compare their condition, such as weight, and so on, from time to time. Further, if you have a debit and credit space after each interview they will take more pains to see that their account is balanced from time to time. Many a time you can make a cash patient by remarking something about the charge, or debit, column.

Many physicians will say, "Oh, that is too much work."

It is not. The old-fashioned methods are the hardest kind of all, and they are not original entries. At present our ledger is a copy from our day book, which is a copy from the visiting list, and this list is changed and perhaps copied from week to week. We are looking for a system that will do away with all this copying.

In the plan that I present all you have to do is to take down notes while you are examining your patient, putting aside foolish cajolery. Then when you leave, you will be surprised to find that you have spent not more than fifteen or thirty minutes in the interview; that you have the exact time of your examination; that you know all about the elimination, the temperature, pulse, respiration, the leading symptoms and the treatment for the same; whether the patient was seen at the house or your office; your charge for services; and whether he paid cash or not.

Here, then, you have a fund of information that is reliable, because it is taken on the spot, an original "entry", one that is good in any court of justice, indisputable because the time of your visit is there and the patient and his family saw you put it down. And then, too, your bookkeeping is all done. There is no posting of books after you reach your office, hence much time is saved. Does it take much time? Decidedly, no. To prove it: not long ago I attended four patients in fifteen minutes in this manner, noting the time of the reading of the temperature as the time of my examination.

Now, what system will accomplish all this, and at the same time be compact and easy to carry around? This is hard to answer offhand. I have been working on the matter for some years. On the corner of my desk, in Figure 1, is shown a bunch of some thirty discarded systems. In many of them you have to write out a sheet for every call or attention, and these are apt to be easily lost. Many are too bulky, a lot are on cards. The fact that these systems are so numerous shows that there is a demand on the part of physicians for some labor-saving devices so as to preserve easily bedside clinics.

This is a matter that is not touched upon in our medical schools, and yet it would be a great help to the young physician who,

when taught something about systems and the preservation of clinical records, can use a system adapted to his needs. There has been a long-felt want for a suitable system, and the mercantile world is making an effort to fill the same at prices ranging from $25.00 to $500 or more. I have carefully examined every one that I could get hold of and herewith give the results.

My Own Improved System

To the young physician one of the first considerations is expense. Outside of my time used in getting it together (also minus the seal-press), the entire outfit shown in Figure 1 cost me less than $15. The desk itself is not included. It is a relic of my undergraduate days. The outfit consists of a case of twelve drawers placed on a shelf over the desk. (See Fig. 4.)

This case was made to order. It has a fine finish, and its actual cost at my door was $6.65. The sixty-five cents was for freight and express. The inside measurement of each drawer is 12×6 1-8×4 1-2 inches, and is divided by a movable partition.

In Figure 1, on the middle of the desk, is shown the drawer containing "current cases," or "cases under treatment." The sides have been cut down to make it easier to handle. This drawer is divided into four compartments, perhaps best explained by diagram. (See Fig. 5.)

The markers for the days of the week are stored right behind the month-cards. With rubber type and indelible ink anyone can make one of these calendar sets. Where the printing comes the cards are reinforced by cloth, glued on. I used Dennison's gummed cloth tape for this purpose, and it makes it very neat and durable. This gives you a perpetual calendar. Those that have seen mine think that it was done by a regular printer. I was glad that I was able to make it when I found that there was nothing published like it to suit my needs, and to have it made to order I found that it would entail heavy expense.

I place my "engagements" in front of the card bearing the date, so every case in front of that date must receive immediate attention. When the work is done it is placed in No. 1 compartment, awaiting a general summary at the end of the day.

At the end of the month the bills for the month just finished are made out from the records in the alphabetical index behind the card inscribed "Cases Treated This Month." Or these bills may be made out at any time, placed in the alphabetical index of the "Accounts" drawer, and then sent out as desired. The "confinement-cases" are examined and placed under the date they need to be attended to. By this plan there is no tax on the memory.

How Accounts Are Handled

After the bills are made out and mailed these records are transferred to "Accounts, Bills Unpaid." (See Fig. 6.) In this

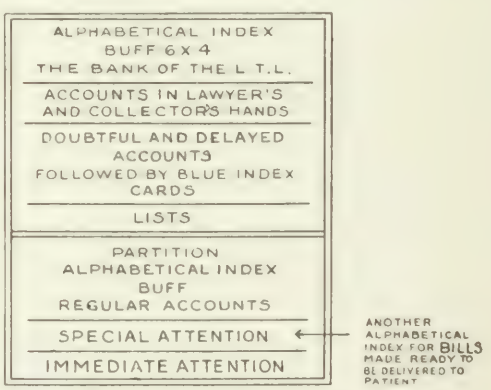


Fig. 6. Arrangement of "Accounts" drawer

drawer there are four alphabetical indexes separated by a partition. First comes a card 6 1-8 × 4 inches, labeled "Immediate Attention." Next is a card for those accounts requiring "Special Attention," size 6 1-8 × 4 1-4 inches. Next is an alphabetical index for "Bills," that I make out usually when the "goods are delivered" and mail about the first of the month or whenever the patient calls for them. This is a convenience, for the work is done at leisure moments and the wife can receipt the bill at any time in one's absence. This card is followed by "Regular Accounts," in alphabetical order. Behind the partition in the next compartment comes a "List of Accounts Sent," followed by "Doubtful and Delayed

Accounts," also alphabetically arranged. Next are "Accounts in Lawyer's Hands." Finally comes the "Bank of the L. T. L.," where hopeless accounts are located by an index. When any account is settled in full, it becomes history and is placed in its proper place in the "Case-Record."

There being twelve drawers in the case, there is no chance for crowding.

Now, as to what kind of material we shall put our records on, cards are out of the question, they being too bulky. A strong linen paper, I find, is the best, measuring 7 1-4 × 5 1-2 inches, folded once. This will give room enough for at least eighteen attentions. A blank sheet may be used, but a printed form is neater and more business-like. I have been able to find but one firm that has anything simple, concise, without bulk, not requiring many sheets, and they were in the field for business earnestly enough to sell the supplies (just as wanted) without requiring one to buy the whole outfit, at a cost of $25.00, which consists of a case of four drawers and supplies. If one wants an outfit all made up this is the best one to buy, and this particular outfit is meeting with especial favor. The advertisements of the concern now appear in many of the leading medical journals. They have history-sheets for nearly every possible line of work.

(*To be Continued*)

Lactic-Acid Ferments

With Special Reference to Their Application in Genitourinary Work

By FREDERIC S. MASON, B. Sc., Ph. G., M. D., New York City

IN a rather long article published by me in the London *Lancet*, the 26th of September, 1908, I reviewed the question of the various bacteria which give rise to lactic acid as residue of their metabolic activities, but as we require practical information applicable to our special work rather than a technical expose of the subject, I purpose to review briefly only the work of Metchnikoff and other bacteriologists. In passing, allow me to add that while Metchnikoff, who has the modern but somewhat unprofessional faculty of getting into the "limelight," has brought this question of lactic ferments into prominence more especially in connection with his book on the "Nature of Man" and the "Prolongation of Life." This eminent authority is only one of many others who have studied the lactic ferments.

The Lactic-Acid Ferments of the East

Bacteriological examination of these various ferments used by eastern races in Europe and Asia Minor, the secret of whose preparation has been handed down in families from time immemorial, showed that far from being pure ferments, they are contaminated by a great variety of bacteria, quite a number of which were saprophytes and even pathogens. The crude methods employed in the preparation of these milk ferments rendered this inevitable, but sufficient of the strong lactic-acid-forming microorganisms are present in these primitive ferments to counteract the obnoxious microorganisms. It is evident, however, that from a therapeutic standpoint it is desirable to make use of pure cultures rather than to use lactic ferments mixed with undesirable bacteria. With great pains such pure cultures of the most active acid-producing bacteria have been isolated.

The autointoxication resulting from undesirable ferments within the intestine is now believed to have a direct bearing on precocious senility, since the toxins resulting from undesirable intestinal fermentation so irritate the kidney and blood-vessels that function is impaired by producing fibrosis infiltration which leads to premature old age.

Most civilized races have abandoned the extensive use of fermented milk foods on an extensive scale; however, since the fore-

going facts have been brought out the cry of "back to nature" is being seriously considered and scientific principles are utilized in furnishing the useful lactic ferments which have been recognized as the most useful in combating the growing tendency to degeneration of modern man. Especial praise should be given, in connection with the study of lactic ferments, to Professor Masé of the Paris Pasteur Institute, who, while very modest and retiring, has been, perhaps, the most persistent worker in this direction.

A few words as to the theory on which intestinal autointoxication is prevented will here be in order, since it will throw a light on the real value of these ferments as applied to genitourinary work.

Theory of Intestinal Autointoxication

Most saprophytic, pathogenic and many useful bacteria, and even some protozoa flourish best in alkaline culture-media, nevertheless quite a large number (two to three hundred varieties) give rise to what I should call "excremental" lactic acid, so that the mere fact that certain bacteria give rise to it, under favorable conditions of temperature and in a suitable culture-medium of saccharine matter or even albumins (by splitting off the carbohydrate group of the complex proteid molecules), is of no great value.

The real value of lactic ferments lies in the fact that some bacteria, and especially those used in oriental countries for making sour-milk foods, have acquired the faculty of proliferating in the presence of comparatively large amounts of lactic acid, while those that are less acid-resisting cease to live. Examples of pathogenic organisms which resist only small amounts of lactic acid are bacillus coli, bacillus aerogenes capsulatus, enterococcus of Thiercelin, staphylococcus aureus, streptococcus pyogenes aureus, oidium lacticum, bacillus typhosus, the spirillum of Asiatic cholera, and the gonococcus, which latter is one of the most interesting to us.

Most of these bacteria are arrested in their proliferation very quickly by the lactic acid formed, just as yeast fermentation is arrested when "excremental" alcohol reaches a certain percentage. It is just this point which makes it necessary to use those pure cultures which are strongly acid- and heat-resisting. The bacillus subtilis, for example, which is a casein solvent, begins first to give off a certain amount of lactic acid, followed by alkaline fermentation. The colon bacillus (against which lactic ferments are especially used internally) produces a little lactic acid, but soon becomes inactive as the fractional percentage of acid increases.

Restraining Action of Lactic-Acid Ferments

I have frequently demonstrated the restraining action of strong active ferments on intestinal autointoxication from the colon bacilli and saprophytic bacteria. When strong cultures are used, the general well-being of patients is greatly improved and the urine shows that the ethereal sulphates and indican are reduced very considerably. As a patient remarked only last week, "I have never since I can remember felt as well as I do since I began the use of buttermilk made with these lactic ferments."

This man, aged thirty-two, a lawyer, was a neurasthenic of a pronounced type, his urine was blue-black with indican, flatulency was very pronounced, his appearance was cadaverous, and his urine showed 0.4 percent of sugar. All these symptoms cleared up with the exception of the sugar, which was reduced to 0.2 percent within a week, yet the man had previously tried ordinary buttermilk treatment and had been under medical treatment on and off for years.

This brings me to the question of for what lactic ferments should be used. These units of cell-life which give rise to lactic acid are of numerous varieties, but they are variable in their acid- and heat-resisting properties, as I have already shown, and while buttermilk has been used as a food by all nations from time immemorial, these fermented milks such as kumiss, kefir milk products, yoghurt, as well as our clabber, are the product of mixed ferments and contain very undesirable microorganisms beside the useful ones. Mere exposure of milk to

the air will sour it, because the air contains innumerable bacteria, and the dairy-made milk is soured chiefly by the bacteria from the cow's dirt on the udders and their excreta.

Thanks, however, to a preponderance of the common bacillus lactis sufficient lactic acid is usually formed to arrest proliferation of saprophytes and pathogenic organisms beyond a certain point, so that even the worst buttermilk is better than ordinary unfermented milk.

Defects of Ordinary Ferments

Another reason why ordinary ferments are of not much value is that they cannot resist much heat. This is the case with the bacillus lactis, which is always present in fresh milk. Another useful ferment, the bacillus acidi paralactici, has therefore little antiputrefactive utility, since it becomes inactive at a temperature of about 36° C. Many cheeses have present in them quite dangerous toxin-forming ferments, but these bacteria do not resist body-temperature and hence become harmless when ingested.

A number of useful lactic ferments have been isolated and are sold commercially in the form of tablets made by desiccating in an autoclave rich milk-cultures with an excess of saccharine and proteid matter which allows the preservation of the latent activities of the ferments. Unfortunately, the manufacturers usually decorate their products with fancy trade-names without stating what the actual ferments employed are or by what methods they may be distinguished. A great number of these commercial products are now on the market, either in the form of tablets (compressed) or as bouillon-cultures. The latter, however, keep badly and must be prepared freshly.

The Commercial Products

I have brought with me specimens of some of these commercial ferments and have made milk-cultures from them for your examination. These are known under the trade-names of lactone, lactic bacilliary tablets (Fairchild), lactab, lacteol, lactoids, lacto-bacilline, fermenlactyl, etc. Of these, fermenlactyl literature appears to give the most precise details as to the actual microorganisms which the manufacturers use and which they claim are pure cultures of the bacillus bulgaricus (streptobacillus lebenis) and of the streptococcus lebenis. I obtained the microphotographs of these strong lactic ferments from Professor Masé of the Paris Pasteur Institute, of which specimens shown are copies. The presence of both these lactic ferments appears to be essential (for internal use at least) in order to prevent a disagreeable taste which cultures made with the strong streptococcus lebenis or streptobacillus lebenis alone possess.

Rosenthal and Chazarain have recently taken great pains to obtain scientific grounds for the lactic-ferment treatment of gastrointestinal diseases. They cultivated, under the most severe conditions, various pathogenic microorganisms with lactic ferments, but anyone interested I would refer for details to a translation of this communication which I made for *Pediatrics*. Their findings give proof of the value of lactic ferments in killing the enterococcus of Thiercelin and other pathogens. These authorities found that it was impossible to cultivate these pathogenic bacteria in the presence of cultures of the bacillus bulgaricus (streptobacillus lebenis), and state that, when these were cultivated together, in four days at the utmost the lactic ferments alone were found to be actively proliferating.

I will not weary you with quotations from the clinical reports by physicians who have studied the lactic ferments, suffice it to mention the authors of some recent communications. Charles North reported 300 cases treated with lactic-acid bacteria (*N. Y. Med. Jour.*, 1909), Professor Bouchard ("Therapeutique des Maladies Infectieuses"), George Hershell (*Lancet*, Aug., 1908), Charles Hunter Dunn of Boston ("Proceedings of the American Medical Association," 1909), John Huber (*Medical Times*, May, 1909), F. Forchheimer (*Cleveland Medical Journal*, June, 1909), R. Llewellyn Jones (*The Hospital*, Oct., 1909), Hall and Smith (*British Medical Journal*, March 20, 1909), W. Pratt

(American Journal of Clinical Medicine, Dec., 1908), George M. McKee (*N. Y. Jour. of Med.*, Sept., 1909).

In the *Journal of the American Medical Association*, January, 1909, P. G. Heinemann condemns all brands of commercial ferments. This experimenter, however, is not a physician, and can hardly be accepted as an authority, for his methods of examination will hardly stand the test of expert bacteriologists, inasmuch as he compared his findings with milk soured with bacillus lactis from the air, which from a therapeutic standpoint of intestinal asepsis is of very doubtful value as compared with pure cultures of selected bacilli from Bulgarian sour milk.

From what I have said, therefore, I think you will hardly contest the theoretical or practical value of lactic ferments administered internally.

Treatment of Local Infections

I will now endeavor to show what has been done with these ferments for the treatment of local infections within the external orifices of the body.

W. Walsh of Philadelphia (*Internat. Jour. of Surg.*, Nov., 1908) drew attention to the application of lactic ferments and the favorable results following the treatment of pathogenic secretions of the postnasal cavities and the ear with suspensions of these bacteria sprayed into these cavities.

Otto Glogau (*American Medicine*, May, 1909) reported an interesting case of chronic suppurating pansinusitis which yielded to the treatment, and Holbrock Curtis (*Academy of Medicine*, Oct. 28, 1908) mentions a number of such cases and claims a very large field of usefulness for lactic ferments in sinus disease, atrophic rhinitis, empyema of the frontal sinuses, etc. Both these authorities used suspensions in bouillon-cultures. Personally, I have objections to bouillon-cultures because they require to be fresh, and in suppurating discharges from the ears I have used with remarkable success, in two cases, a dry powder containing the lactic ferments in a latent but potential state. A similar powder has been recommended by W. B. McLaughlin (*Medical Record*, Dec. 11, 1909), and I shall refer later to this dry dressing which I think will be very suitable for genitourinary work.

Dentists have used bouillon-cultures of lactic ferments in pyorrhea alveolaris by injecting it under the floor of the mouth into the cul-de-sacs and interdental spaces, and Pierre Rosenthal and A. Bertholot (*Rev. Pharmacol. Med.*, Aug., 1910) recommend the dry powder made from the tablets to clean the mouth frequently, and found results most encouraging. Dr. O'Brian of this city is now doing some experimental work on similar lines and has promised me to report progress.

In the treatment of pyorrhea alveolaris, however, I do not look for much direct benefit, because the activity of the bacteria must of necessity be rapidly diminished by the alkaline buccal secretions and swallowing, which will hardly be likely to allow the ferments time to proliferate unless injected in a liquid form deeply into the sacs.

Effects of Massol Germ in Diphtheria

At the Societé de Biologie (Feb. 26, 1910) Rosenthal presented the results of his experiments with mixed cultures of the Klebs-Loeffler bacillus and the Bulgarian lactic ferments. This authority found that a culture of the Bulgarian lactic ferment could not be contaminated with the bacillus of diphtheria and that when cultivated together the lactic ferment brought about the death of the Klebs-Loeffler bacillus within a few days.

These experiments suggest the use of whey of buttermilk made from pure cultures of the most active lactic-acid-forming Bulgarian ferments (the streptococcus and streptobacillus lebenis) found in the commercial ferment known as fermenlactyl, in the treatment of diphtheria, since such a culture might be applied to advantage as a spray or gargle to supplement the antitoxin treatment of diphtheria.

Medical literature has, from time to time, referred to the use of lactic ferments in the treatment of inflammatory processes occurring within the male and female geni-

talia, but I have never seen any really definite statements, and think that at our clinic we have excellent opportunities of determining this question, and with the sanction of our respected chief, Dr. Pedersen, I hope such an investigation will be carried out systematically. I have thought out various methods for the application of these ferments and hope that in the discussion of my paper suggestions will be forthcoming from other members of the staff of the Hudson street House of Relief.

DeSantos Saxe tells me he has tried them, using cultures in bouillon, but without good results. I doubt, however, the activity of his cultures.

Uses of Lactic-Acid Germs in Gynecology

In the female we have, of course, much better opportunities for their exhibition than in the urethra of the male, and I should be glad to furnish material for experiment to any of our members doing such work.

D. Watson (*Brit. Med. Jour.*, Jan. 22, 1910) has used milk-cultures of lactic ferments in males and females and reports excellent results. In females, he first thoroughly disinfected the parts and curetted them when necessary, and after removing the disinfectant, the ferment was introduced into the vagina. The first effect of the treatment was usually an increase of the discharge, but the purulent quality of the secretion soon disappeared, and it became white and thin. This he removed by gentle swabbing. In the most favorable cases the secretion became normal in a few days; other obstinate cases took two or three weeks. He remarked that his cases appeared to benefit even when the tubes were involved, and in the great majority of cases they yielded to this treatment, where douching and vaginal swabbing had been tried, and where the internal os was patent, curetting and cauterizing had failed. This author reports only two cases of discharge from the male urethra, but these were followed by remarkably good results. We have therefore but little data to go upon.

It may be suggested that we might as well apply lactic acid directly to the parts instead of producing it *in situ* by the lactic ferments, but a moment's reflection will show us this is undesirable for various reasons and would perhaps be irritating.

The object sought is the destruction of the pathogenic organism causing the local inflammatory discharge, and since these burrow down into the tissues, superficial application of lactic acid to the vagina or male urethra would be ineffective. What we want is the slow proliferation and penetration into the tissues of lactic-acid bacteria feeding on the mucopurulent discharges which form a barrier to the progress and final extinction of the inflammatory germs by making the local area a bad culture-medium for any other than the strong and resisting lactic ferments.

Use Milk Cultures

I do not like the bouillon-culture idea and would suggest, for urethral injection, strong milk-cultures of the Bulgarian ferments, reinforced, if necessary, by the addition of lactose. The coagulated casein may be strained out through gauze. These injections should be renewed after urination. Such strong cultures will have to be fresh, but they will keep four or five days in a cool place.

In the female we practically restore, by these means, the normal protecting vaginal secretion which prevents infection by gonococci and other microbes when the tissues are healthy. The vaginal secretions being normally acid from lactic and sarcolactic acids, it is only when some abnormal local condition brings about venous congestion that invasion of the os and finally the uterus and tubes takes place. This is why the healthy woman should never be douched with antiseptic fluids which destroy the bacteria and which have their natural habitat within the vagina-walls. These bacteria are allied to lactic ferments and when let alone take part in the natural cleansing and disinfecting toilet of the healthy vagina.

How to Make Milk Cultures

The making of a milk-culture (buttermilk) is very easy, and while it requires too much

technical detail to make absolutely pure cultures, this is not essential. Such cultures contain sufficient of the strong lactic ferments (streptococcus and streptobacillus lebenis), if the proper lactic-ferment tablets are employed, to overcome and destroy any staphylococcus pyogenes or other pathogenic bacteria in the milk. All that is required, therefore, is fresh milk (which already contains the useful bacillus lactis ready to act as a starter).

Crush a tablet of the lactic ferment, place it in the bottle of milk and in a warm place (not below 35° or above 55° C.), and in from eight to ten hours a fine culture will be obtained, which may be increased in saccharine culture-strength, if desired, by the addition of 2 percent of lactose. This provides for keeping up of the proliferation of the ferments for several days and will give rise to from 1 to 1.5 percent of lactic acid in the culture.

In the treatment of women, however, I do not propose to use the liquid cultures, but rather the dry ferments referred to above. This powder can be made by crushing the strong commercial tablets of lactic fern ents and triturating with 50 percent of sugar of milk. I would suggest that, in vaginal and uterine discharges, the parts be thoroughly cleansed, washing the vagina with a two-percent solution of sodium biborate, followed by distilled water, and finally swabbing out with a tampon saturated with hydrogen-peroxide solution, and then carefully drying. The dry powder of lactic ferments can then be dusted in, covering the os, the vagina being lightly packed with dry absorbent cotton. Such a dressing would not be uncomfortable to the patient, and one or two such dressings daily would, I feel sure, give good results in leucorrhea, and even in acute gonorrheal infection.

If the cervix, the uterus and tubes also are infected, the lactic ferments would finally reach all parts, for they will proliferate in the secretions, and since the streptococcus and streptobacillus lebenis are optionally aerobic and anaerobic, the absence of air in the uterus (owing to the amount of secretion) would not inhibit their growth. It is worth a trial and I trust someone will follow it out.

This dry dressing would, I am inclined to believe, be equally effective in the treatment of buboes (in place of iodoform, when opened for drainage), and as a dusting powder on chancroids after curetting.

Many other suggestions will occur to every one, such as the treatment of mixed chancroid and syphilitic sores. In all these cases we always have, in fact, a mixed infection, and as I have shown, these lactic ferments have a specific action on the pus-forming organisms, and there is every reason to hope for effective results.

::: THERAPEUTIC NOTES :::

ATROPINE IN PARALYTIC ILEUS

A. Lederer (cited in *Ther. Monatsh.*, June, 1910) has administered atropine with very good results in many cases of paralytic ileus, the mode of employment generally being to administer a subcutaneous test-dose of 0.001 Gram, and soon after a larger dose, from three to five times that amount, was injected. In not a single case was it longer than ten minutes before results were obtained. In two cases symptoms of intoxication occurred, which, however, were only transitory. The treatment was supplemented by colonic flushings, but these were effective only after the injections of atropine.

CALCIUM CHLORIDE IN RHINORRHEA

It will be conceded says Lake (*British Medical Journal*, July 9, 1910), even by the most experienced rhinologists that the treat-

ment of that exceedingly annoying and distressing symptom, rhinorrhea, is unsatisfactory, even to put it mildly.

It is considered, and had been considered for a long time, that rhinorrhea is a symptom of a vasomotor rhinitis. All the remedies recommended for its relief had their basis in the idea that this symptom was an evidence of a neurosis. Lake had felt for a long time quite helpless in the matter of treatment. There appeared only one source for the trouble, and that was the blood. Consequently, some two years ago he first tried the effect of calcium chloride, giving 30 to 45 grains a day for two weeks. With scarcely an exception this objectionable symptom was completely removed; sometimes it recurred at long intervals, always to yield again; and, so far, no case of rhinorrhea has proved absolutely unresponsive, though one was very intractable.

The real pathology of the condition he has not attempted to elucidate, but the amount of chloride in the blood may yield a hint as to the causative factor, probably merely excessive osmosis.

He has not employed the salt so far in spasmodic sneezing, hay-fever or asthma, but it might possibly be of use here also.

ATROPINE METHYLBROMATE IN DIABETES

Julius Budisch (rev. *Wien Med. Woch.* 1910; No. 28, col. 1670) recommends atropine methylbromate in diabetes. Even if long continued, relatively large doses (0.008 Gm. three times daily, increasing to 0.03 Gm. three times daily) are borne without symptoms of intoxication. The elimination of sugar is influenced by atropine far more decidedly than by any other remedy.

ADMINISTRATION OF STROPHANTHIN

It has been urged that strophanthin be administered intravenously, but *The Therapeutic Gazette* concluded that this should be reserved for grave emergencies, and that while the technic is simple there are disadvantages and dangers attending, rendering the intramuscular injection preferable unless haste is essential. Heffter found the strophanthins in the market quite variable, Merck's being one and one-half times stronger than Boehringer's or Schuchardt's. Boehringer's consisted of a mixture of two glucosides of differing reaction and was condemned.

EFFECT OF COLCHICINE UPON THE METABOLISM

Maurel and Arnaud have made exact measurements of alimentary ingesta and urinary excreta in rabbits for the purpose of determining the effects of colchicine. According to *La Province Médicale*, 1910, No. 8, they gave the alkaloid subcutaneously in doses of 0.0001 Gm. and 0.0015 Gm. per kilogram-weight, and found that it (1) diminishes the amount of the assimilated nitrogen and increases the amount of nitrogen excreted by the kidneys; (2) increases the amount of phosphoric acid in the urine in about the same degree.

These results go far to justify the use of preparations of colchicine in affection due to overnutrition, such as gout.

CALCIUM SULPHIDE FOR ERYSIPELAS IN INFANTS

Dr. E. Toussaint, in *La Dosimetrie* for May, 1910, discusses the great difficulty in treating erysipelas in newborn infants. As noted a teacher as Trousseau says that not many years ago the disease invariably proved fatal in infants, but that this has been changed by the adoption of dosimetric remedies, and more especially since treating it with calcium sulphide. Dr. Toussaint reports the cases of two infants, both less than one month old, whose mothers, at their birth, had severe puerperal sepsis. The babies were ill with the same infection, and the question of treatment arose.

Attempting to administer calcium sulphide by mouth, the doctor found that one baby would not take the solution at all, while in the other very soon vomiting occurred. It was impossible, of course, to

give the sulphide granules undissolved; and so it occurred to the doctor to let the granules dissolve, with the exclusion of the atmosphere, in a small glass syringe of five centimeters' capacity filled with warm water; one granule being dissolved in each syringe filled with water. After dissolving, it was injected into the rectum, which had previously been cleansed by an enema of plain water [and 0.5 percent of salt]. The treatment proved so effective that each baby received four granules in every twenty-four hours.

Baby No. 1 was treated for ten days, the other for sixteen. The results were perfect in one of the infants, who recovered and was entirely restored to health. The second baby, which was raised on the bottle, later on was affected with an eczematous eruption on the face, which also was treated with calcium sulphide. The baby, nevertheless, did not thrive very well, and now, at the age of nine months, is weakly. Dr. Toussaint recommends this mode of giving calcium sulphide to very small infants, as of value.

THE TREATMENT OF HEMORRHOIDS

According to Dr. E. Monin (*La Dosimetrie* for May, 1910), people affected with hemorrhoids should lead an active life with moderate exercise in the open air. If they are troubled with constipation, violent purgation, especially with aloes, is contraindicated. One or two granules, each, of podophyllin and atropine taken at bedtime will produce free movements, while a coffeespoonful of seidlitz powder (effervescent magnesium sulphate), taken in the morning with a glass of hot water, will stimulate an efficient alvine excretion. Abdominal massage and exercise are useful to prevent hemorrhoidal accidents. The exercise is done by the patient lying flat on the carpet and attempting to rise without using the arms to support himself. If there is any rectal congestion, baths with lukewarm water, compresses over the liver with solution of salicylates, and lotions to the anus of warm ichthyol solution, are useful.

Of especial importance is an exclusively vegetable diet. On the whole, alcohol, wine, bouillon, coffee, tea are contraindicated, while such foodstuffs should be chosen as are capable of stimulating peristalsis and of favoring the removal of the alvine discharges. Among these articles may be mentioned beets, dishes prepared with milk, stale bread, vegetables rich in residual material, such as spinach, cooked carrots, potatoes; also fruits, either raw or cooked, which leave in their passage through the intestines a large amount of waste material, as, for instance, strawberries, raspberries, pears, raisins, dates, figs, plums, pumpkin. Horseback riding and sexual excesses, which excite the rectal mucous membrane, are to be avoided

Against hemorrhoidal crises it is well to administer, three times daily, one grain of calcium sulphide, together with one granule of ergotin and one of hyoscyamine, in order to eestablish the vascular contractility. This treatment, in the author's opinion, is superior to that with hamamelis, hydrastis, capsicum, horse-chestnut, and such like. In the presence of a well-defined hepatic plethora one should prescribe, once every three hours, two granules of calomel and two of lithium salicylate; at bedtime some biliary salts. To this may be added about half an ounce of olive oil, with 20 drops of essence of juniper, every morning before lunch.

In this manner the abdominal circulation is best stimulated. The portal system becomes less congested and the hemorrhoidal veins are less obstructed. Hepatic obstruction is just as harmful to persons afflicted with hemorrhoids as are garters to people troubled with varicose veins on the legs.

There are cases, however, in which the periodical loss of blood from hemorrhoids is useful. This is especially the case in plethoric persons; and in such individuals we must be careful not to suppress a providential discharge of blood which in itself is equivalent to a prophylactic venesection. Such a loss of blood acts as a safety-valve for people afflicted with gout, Bright's disease, heart disease, and sclerosis. Every observing physician must admit, in certain cases, such an ability of the organism to

defend itself and to restore its own equilibrium, which the ancients called, very properly, the *medicatrix naturæ*.

After each defecation the anus should be washed with lukewarm water to which a little alum has been added. If the hemorrhoids are turgid, the lotion should be used very hot, and should be repeated often, when they will remedy the congestion of the rectum. If the condition has been of long standing, cold irrigations, lasting three minutes, may be preferable, repeated evening and morning. A soothing ointment containing opium, belladonna, cocaine, adrenalin, and such like, or else suppositories with tannin and hamamelis, may be required, and these will promptly quiet the pain.

HOW TO GROW TALL

It is said that no man "by taking thought can add one cubit unto his stature." Apparently, however, there are other ways of accomplishing this desired result. Marion Harland, answering an inquirer in the Chicago *Daily News*, tells how stature may be added to, as follows:

"When you rise in the morning, and after the bath, rise upon your toes and stretch the tips of the fingers up toward the ceiling as far as they will go; sweep your hands over front, touching tips of fingers and the flat of the palms to the floor, keeping the knees straight. Repeat these exercises three or four times daily, keeping them up for ten minutes at a time, standing on tiptoe with arms up at full length as long as you can bear the strain. Persevere and you will surely gain in stature. I know of a youth of 22 who grew two inches a year by doing this."

CONCERNING DRUG-NIHILISM

The editorial announcement of *The Journal of Pharmacology, and Experimental Therapeutics*, Vol. I, June, 1909, No. 1, cites Prof. Paul Ehrlich, the eminent investigator in the field of specific and experimental therapeutics, as having recently said: "There can be no doubt that the three great fields of knowledge, pharmacology, toxicology and therapeutics, in their theoretical and practical aspects, form the most important branches of medicine."

ON DIET IN RENAL DISEASES

Linossier and Lemoine reported to the Academy of Medicine in Paris (*Muenchen. Med. Woch.*, 1910, No. 18, p. 987) on their experiments concerning the influence of albuminous substances of animal origin upon the kidneys. All these substances, subcutaneously injected, produced albuminoid and renal diseases. If they appear harmless in the usual manner of ingestion, it is the gastric juice which removes their toxicity. But if the digestive functions are insufficiently carried on or if the kidneys are pathologically altered the harmful influence of albumin becomes evident. For this reason persons with kidney disease should eat animal proteids only when cooked, never raw. Beef owes its bad reputation in this respect to the fact that it is often eaten when only half-done. In reality veal is more toxic, but has the advantage of being invariably fully cooked. Egg-albumen should always be coagulated.

If the digestion is poor, even uncooked milk may be harmful for the kidneys, and patients with albuminuria, when put on a milk diet, should drink the milk only after it is boiled, if their gastric function is insufficient.

INFANT FEEDING WITH UNDILUTED CITRATED MILK

Eighty consecutive cases of wasting infants fed on undiluted citrated milk are reported by Dr. Frederick Langmead (Proceedings Royal Medical Society of Medicine, May, 1910, through *Journal American Medical Association*, July 9, 1910, page 150).

The method of adding sodium citrate to cows' milk was first advocated by Sir Almroth Wright, being based on the influence which calcium salts have been proved to exert on the coagulability *in vitro*, the soft-

ness and fineness of the curd varying directly with the amount of the sodium citrate used.

Dr. Langmead employed the process without diluting the milk, which had been found to have disadvantages. He used it in such cases in which artificial feeding was unavoidable. He found it important to start well below the theoretically adequate amount given in the table of Holt as to quantity and intervals of feeding and he had to feel his way from week to week. Having decided on the amount and frequency of the feedings, to each ounce of milk ordered two grains of sodium citrate was added in the form of a watery solution of such strength that one dram was added to each feeding. The mother was then instructed to bring the milk to a boil and then add the solution. This served to sterilize the milk, and it has been found that the clot of citrated milk thus brought to the boil is finer than that which has been pasteurized or merely warmed. In babies, after two weeks old, the method was found of value. The citrating was gradually lessened at the age of about five months and can be usually omitted at about six months.

One of the chief advantages of the method is its simplicity, much manipulation with its attendant risks and mistakes being avoided. It applies most forcibly to the hospital class of patients, for whom it is also suitable on account of its cheapness. The disadvantages of dilution, the bulkiness of the food, the complexity of the monthly variations, the dangers of artificially preserved or thickened cream, or of giving food containing too little fat, are all evaded. There is no danger of scurvy. Langmead has been struck by the firmness of the muscles of babies fed by this method, as contrasted with others, and asserts that this is a better guide to the state of the nutrition than is the weight.

IODOFORM AS AN INTERNAL MEDICAMENT

Moleschott employed iodoform in organic affections of the heart, especially in the asystolic period of mitral insufficiency. He thus secured the compensatory reinforcement of the cardiac muscle and frequently the disappearance of the circulatory troubles.

In such cases Burggraeve associated iodoform, strychnine and digitalin.

In cardiac vertigo iodoform combined with caffeine renders great services.

With diabetics taking 0.10 to 0.40 Grams of iodoform daily, Moleschott secured a favorable action and a diminution of the sugar.

In many cases of various respiratory affections—nervous asthma, whooping-cough, etc.—iodoform in doses of 0.2 to 1.0 Gram by inhalation, in three daily seances, gave these results:

1. Diminution of the paroxysms of cough.
2. Lessening expectoration to one-fifth or less.
3. Râles less extensive, respiratory murmur less rude and more energetic.
4. The patients after the inhalation are more tranquil, less agitated, and are seized with a sweet slumber.
5. The temperature falls and often becomes normal.
6. The urea varies with the febrile movement, without always being directly influenced by iodoform.
7. The body-weight is augmented.
8. The local sweats diminish and many times disappear.
9. In asthma and whooping-cough the accesses of dyspnea and of cough become less frequent.
10. Taken thus by inhalation iodoform acts more quickly than by the stomach, and does not trouble the digestion. This does not apply to the granules, which do not disagree or lose strength.

INTESTINAL OBSTRUCTION AND CARCINOMA

An intestinal obstruction developing rather suddenly after an indefinite history of constipation in persons past middle life is usually due to carcinoma of the sigmoid.—*Medical Review of Reviews*, April, 1910.

The Need of Studying Senility

IV

In our last chapter we closed with the proposition that senility is not a disease but a natural stage in the evolution of the living being. To develop this idea with some clearness, we must go back a few steps.

In order to have a clear view of the period of decrease it is necessary first of all to know what the period of increase is, or, in other words, we must first get a collective bird's-eye view of the individual's complete career. I purpose to show that senility has its well-marked place in normal life. It is of great importance that this idea be always present in your minds so that as physicians you may not pass by this period of human life unnoticed, the period when the individual, though not sick, yet is growing old and needs your assistance to grow old normally and prevent his senilization to go on too rapidly or irregularly.

When I called your attention to the fact that senility was omitted as one of the stages through which the living being passes during its existence, it might have been objected that senility is necessarily implied in the last characteristic which the ancients assigned to living beings, viz., that they die. Yes, they do die, but they are born also, and they grow, too, and increase; and these conditions are just the stages through which the living beings pass during their existence and over which writers have always expatiated with such delight.

Let us, therefore, not be astonished at the fact that the period of decrease which conducts the living being down to death was not considered worthy of more marked consideration, a period which brings into play certain organic laws the evolution of which is of no less interest to pursue than those laws which rule during the period of growth. It is due, no doubt, to the silence in which naturalists have persisted for so long a time about this phase of life that the important question of death seems to have become surrounded with discredit as an object of consideration.

In our own day authors have taken hold of this problem all along the line, and the list of books in which you can read about it with interest and profit is a long one. The latest interesting writing on this subject, and which I would advise you to read and meditate upon, is that by M. Sabatier, entitled "Essai sur la Vie et la Mort," Sabatier's studies on growing old—senescence—gave me occasion to borrow much from him.

It is not necessary to enter here upon the formidable question as to what is life. This would take us too far. I myself believe that life could be conceived of as detached from any organized structure, whether animal or vegetable, or even mineral.

Let me explain. Simple bodies which enter into the composition of an element in which life can exist may, strictly speaking, come to be grouped in other and quite different ways. We are not bound at the present day to regard them as the only means by which life can manifest itself. Then these simple bodies which we are so ready to take as the starting point, are they not also

decomposable into other and still more simple bodies? And reasoning further from these premises, we finally, in the last analysis, come to the essence of matter, but of the nature of which science is as yet uninformed. Hence it is that the forms under which life does manifest itself are insufficient to serve as a *point d'appui*, or starting point, in the explanation of life.

Should we desire to enter upon a purely theoretically speculative work, we should have to undertake the arduous labor of analyzing succinctly all the hypotheses that were put forth; and it might not be unprofitable to consider the ideas of Pioger, which, though at times quite speculative, are always interestingly set forth in his work, "Le Monde Physique."

For us, however, the question is only one of formulating a correct idea of what a living being is, for it is this that is now occupying us exclusively, and we desire to know it in order to follow it in its evolution and being, and to ascertain at the same time the important modifications which it presents in the normal and in the pathological state.

We know now that organized bodies are combinations of material atoms taken from their environment, to which they return. The first term of the proposition is birth and growth—*nascunt et crescunt*, as the ancients used to say; the last term is the growing old and death—*senescent et moriuntur*. You see clearly that senescence, growing old, has its place—and a grand place it is—in the phenomena of organic life; and according to our conception of the human being this phase ought not to be left in the unillumined shadow.

In the first chapters of Dr. Létourneau's work, "Biology," you will find a cursory critique of the more authoritative definitions of life, all of which suffer from the defect of being either too comprehensive or of not being comprehensive enough.

Létourneau says rightly that it is of more value to clear the field of too many definitions and limit oneself to the principal facts of life that have been observed. He gives the following definition of life: "Life is a continual simultaneously double movement of composition and decomposition carried on within the plasmatic substance or the anatomic elements which are functioning under the influence of this movement in conformance with their structure."

But is this not a definition rather of a living being than of life itself? And is not this expression, "functioning in conformance with their structure," rather vague and fails to explain the why and wherefore of this structure?

I propose the following definition: "The living being is a temporary individualization of variable form; it is a sum of forces capable of assuring the permanence of the form (once assumed) and of calling forth the determination of similar other forms before it is itself disintegrated."

I believe this definition to be nearer the truth, and if you should find my expression, "sum of forces," to savor of indefinite abstraction, I would defend myself by saying that our language has not furnished me with other words that have not acquired a settled meaning of their own, or which would not become subject to too much discussion.

Matter, as I have said, unfortunately is not known to us as to its essence, but since matter and force do not go one without the other, it would seem to me that the second term might represent an entity more real and less subject to controversy. In the definition you have the affirmation of the principal characteristics of a living being, to wit: Individualization first of all, which means that this being finds in itself the power to assure its permanency, its proper, or immediate, personality; then it has its second, or mediate, personality by procreating a personality similar to itself; and, lastly, it terminates its cycle by restoring to the external medium the elements of its constitution which it has received from it. This last term, the disintegration, is death, and the time in which it is accomplished is "senescence," the period of growing old.

We are now prepared, in a measure, to put the question: Why does the living being die? How does it die?

This will, at the same time, be a study of senescence, of growing old. It is by these general ideas that we will be guided in the study of senilization and of old age in the human being. You see that this excursion into the domain of biology will serve to set out for us the stakes which will guide us in our medical research work applied exclusively to the human being.—[Translated from "Leçons sur les Maladies des Vieillards," by Dr. Boy-Teissier.]

THE TREATMENT OF ASTHMATICS

True asthma is to be looked upon as a neurosis of the breathing apparatus (*l'arbre aerien*) characterized by dyspneic attacks accompanied by disturbances of the vascular apparatus and of the secretions. Immediately before an attack the respiratory function seems to be normal and auscultation discovers no lesion whatever. The attack occurs more frequently at night and announces itself by some gastric prodromata, some constipation and tympanitis, and a slight oppression with dry cough.

The patient is suddenly awakened from his first sleep by an oppressing sense of anxiety and an extreme difficulty of respiration, lasting on the average from two to three hours. The attack goes off gradually, after a viscous and beady expectoration and an abundant diuresis. The patient falls asleep in the morning, but his attacks are repeated many nights in succession, with or without a diminution of their force. I am speaking here, of course, of the *natural* history of the disease, that is, of its virgin state before the patient has undergone any treatment.

As a reflex nerve disturbance in the medulla oblongata asthma is kept up by a point of lesion (asthmatic zone) which may be localized in the nasopharynx, bronchi or stomach (dilated), or more rarely in the generative organs. A neuroarthritis predisposes frequently to this disturbance of the respiratory balance in asthma, to the tendency to its attacks, which may make their first appearance in infancy. It is not rare for asthmatic attacks to cease after the removal of polypi, or on instituting a rigorous dietetic regimen, or after a curettement of the uterus. Odors, dust, and emotions play a striking part in provoking asthmatic attacks As to localities, the question is often inexplicable and unsolvable. Asthma is met with more frequently during hot seasons and in hot climates than in winter and in cold climates; it is met with less in low and sheltered localities than in high localities. Violent winds are injurious, and city atmosphere is more favorable to asthmatics than living in the country. Molle has lately demonstrated the harmful action of calcarious clay (kaolin) dust. All these curious etiologies are to my mind just so many eloquent pleadings in favor of the nervous nature of this disease.

Hereditary as neuroarthritism, of which it is an expression, this disease of the rich has its frequent equivalents in migraine, dyspepsia, eczema, and above all in urticaria; asthma is, indeed, looked upon by certain authors as a veritable urticaria of the bronchi. It is probable that we have here to do with analogous toxins which are capable of causing certain vasomotor perturbations in various organic systems. What is certain is that an alimentary regimen, by removing the bodily waste and by moderating the digestive ferments, corrects at the same time the dyspneic attacks and the diathetic manifestations which the ancients called *interchangeable* metastases, acting, as do artificial "issues," against neuroarthritism. Henoch describes a toxialimentary asthma in infants which yields to emetine dosimetrically administered up to the point of vomiting.

At the time of an asthmatic attack the patient must get as much air as possible; he should be reassured; his neck should be freed, and his chest covered with dry-cupping and his lower extremities covered with sinapisms. He should inhale the vapor of a teaspoonful of pyridin from a heated saucer, or the fumes of a powder of datura, hyoscyamus, belladonna, cannabis and potassium nitrate, equal parts, disposed in the shape of a cone and lighted.

I have seen at times an attack of asthma aborted by brushing the pharynx with cocaine, or by the inspiration of ethyl iodide. Every half hour a granule each of atropine,

Gregory's salt, and strychnine arsenate should be taken together. This is the dominant remedy, intended mainly to increase the respiratory capacity. As variants we have aconitine, hyoscyamine and quinine valerianate, which act also on the medulla, the seat of the dyspneic perversion. Lobelin, in half-milligram doses, facilitates expectoration and removes the spasmodic condition of the pneumogastric. This remedy, with good reason, is a component of the antiasthmatic compound granule, consisting of strychnine arsenate, half a milligram; hyoscyamine, one-quarter milligram; and lobelin, one-half milligram. Lobelin may be given up to three or four milligrams *pro die*.

Atropine was highly lauded by Von Noorden in 1897, and recently again by Terray, and we think this alkaloid the most energetic to be opposed against a severe attack of dyspnea. By giving it dosimetrically, but not to exceed two or three milligrams in twenty-four hours, we avoid atropinism, especially as regards ocular accommodation. Lobelin, according to Schmiedeberg, acts on the nervous system as a succedaneum to atropine; its employment lengthens the intervals between the attacks, and renders them of shorter duration and of less severity, even in case of an intrusion of cardiac asthma. I have no opinion to express on this treatment from personal experience.

All asthmatics must clear their digestive canals from toxins (*desintoxiquer leur tube digestif*) by means of a laxative saline in the morning taken in an infusion of violets or of polygala; by a milk diet, with the addition of one or two cups of weak broth, kept up for some days after an attack; lastly, by enemas of thyme with the addition of urotropin.

Later on the diet should be lacto-ovo-vegetarian by preference.

Should there be a complication with emphysema, then the iodides and bromides (0.25 Gm. of each) and sulphur baths are advisable, not only as eupneics but also as promotive of combustion (oxidation-metabolism).

In the aged the prognosis of asthma is closely connected with the conditions of the heart and kidneys. The respiratory efforts of the aged should be relieved by a dorsal decubitus, which produces a hypostasis and impedes expectoration. Stenol [a mixture of caffeine and theobromine] and a dechloridation diet will answer as symptomatic medications. In case of a tendency to asystolia we add sparteine or digitalin to the strychnine.

In regard to strychnine arsenate which Dr. Rénon recently advised in the terminal stage of bronchitis, the late lamented Coriveaud affirms from his established conviction, based upon very precise facts, that this salt possesses an almost specific power of contracting the muscles of Reissessen, but on the condition (as he says) that one is not afraid to push the doses, if they do good, to six and seven milligrams a day.

In certain rebellious cases we shall have to think of physical agencies. Light baths overcome the asthmatic bronchitis and in from twelve to fifteen days make the vesicular murmur to reappear, which had been suppressed under the most sibilant and crackling râles. They remove the dyspnea, restore the appetite and the sleep, which becomes regular perceptibly, in proportion as the bronchi are disencumbered. Respiratory gymnastics fortify the bronchi and combat pulmonary insufficiency, reestablish the play of the inspiratory muscles and the permeability of the air-passages, perfect the expansion of the chest and the extension of the diaphragm, by increasing the demand for air. Electricity and mechanotherapy ought also to be of value in this kind of gymnastics, which we can not dilate upon in this short study. Massage, too, has its indication here, and not in a small measure.—Dr. E. Monin in *La Dosimetrie*, February, 1910, p. 26.

The Right Treatment of Rheumatism

RHEUMATISM is a disease which no doctor should undertake to treat unless he has infinite patience, perseverance and willingness to study the materia medica.

Personally, I have been much interested lately in reading an article on the treatment of acute rheumatism written by a professor of therapeutics in one of the largest eastern colleges, and which has been copied or abstracted in several medical journals. The author of that paper speaks of the salicylates as though they were the only remedies that were at all reliable in the treatment of rheumatism, but he nowhere says a word about that vitally important fact, which we should ever bear in mind, always to use the pure salicylates derived from the true natural oil of wintergreen.

The author also says: "Where the salicylates cannot be tolerated, synthetics can be given for the relief of pain." Just think of relying on coaltar heart depressants for the relief of pain in a disease where organic heart lesions are so very prone to occur unless it is promptly stamped out!

It is this kind of treatment of stubborn, obstinate and exceedingly painful disease that leads to our patients' leaving us for Christian scientists, osteopaths, patent-medicine vendors, and all kinds of purveyors of dope for self-quackery.

In starting out to treat rheumatism, there are two vitally essential things to remember.

First of all, cast aside all your foolish, antiquated, obsolete, sectarian notions, if you have any. You will find good rheumatism remedies in the allopathic, homeopathic, and eclectic systems of practice, and you will need them all. I was going to add "alkaloidal" also, but that would hardly be fair to Dr. Abbott and his associates, as they have picked up and picked out, and incorporated into their method of treatment all the best and most reliable homeopathic and eclectic prescriptions.

Second, you must keep, carry and dispense your own medicine. You must have instruments of precision on which you can rely with perfect confidence. In treating a disease like this one, where so much depends upon your accuracy in prescribing, it will not do to risk having your best work spoiled by the substitution of a poor or inactive preparation of the indicated remedy.

Now, the doctor can rely with confidence on certain pharmaceutical lines that are always of the same exact and definite strength, such as the normal tinctures, specific medicines, and the alkaloids and active principles. He can not rely on the ordinary galenical preparations of the vegetable remedies.

To do good work, the doctor must use salicylates made from natural oil of wintergreen, although much of that sold by certain houses at the present time is probably prepared from natural oil of birch, instead of oil of wintergreen. In any case it is a vegetable product and far safer and more successful than any synthetic salicylate.

Among my most valued curative agents in the treatment of rheumatism are bryonia, gelsemium, rhus toxicodendron, iris versi-

color, pulsatilla, apocynum, cimicifuga, guaiac, veratrum, stillingia, pilocarpus, hyoscyamus, podophyllum, chelidonium, chionanthus, leptandra, etc. If, however, anyone is using alkaloids and other active principles, he can go at his man (or woman) with his bryonin, gelsemin or gelseminine,

Dr. William M. Gregory, Berea, Ohio

iridin, anemonin, apocynin, macrotin, stillingin, and so on.

Just let me, in passing, tell you something about guaiac. Years ago I came across this saying in Dr. H. A. Hare's "Materia Medica and Therapeutics:" "Guaiac was formerly much used in rheumatic and tonsillar troubles, but of late years its place has been entirely filled by the salicylates, which are equally effective and much more easily administered." I also came across the following observation about guaiac in Dr. Wm. C. Goodno's work on "The Practice of Medicine:" "A good tincture of guaiac is probably the very best remedy ever discovered for acute and painful cases of tonsillitis." Now, I have abundantly verified the fact, in practice, that Dr. Goodno is right and Dr. Hare is wrong. This kind of stubborn, painful, aching tonsillitis is really a rheumatism of the throat, and in my experience it has promptly yielded to guaiac in every instance, and I never could find many who were benefited by salicylates.

The great secret of success in treating rheumatism is to give definite specific treatment and push elimination. The patients' whole system is foul from retention and absorption of its own toxins. A very successful prescription with me has been gelsemium, bryonia, veratrum, iris, and rhus toxicodendron, a dose every two hours in water, and with this, on the alternate hour, 5 or 10 grains of true salicylate of sodium dissolved in a glass of water as hot as the patient can drink it.

The necessity for giving gelsemium or gelseminine, or aconite or aconitine, or veratrum or veratrine, arises from the fact that all these cases have a very rapid, high-tensioned pulse, and until you relax the patients and let down the pulse, moderately, you are not going to do much in the way of elimination, as their toxins seem to remain locked up in the system. Be sure to cause elimination by means of podophyllin, aloin, leptandrin, hydrastis, capsicum, and gamboge. These rheumatic patients have a torpid, sluggish and inactive liver, and the foregoing combination in granule form, is the best house cleaner for the liver that has ever been invented.

Watch your patient closely, and if there is not a prompt increase in the amount of

urinary solids (uric acid especially) in about twenty-four hours, change your sodium salicylate for tincture of guaiac, and add apocynum or apocynin to your vegetable remedies. Many patients who will not respond at all to salicylates or who get a toxic effect from them, respond beautifully and quickly to guaiac.

If your patient is a woman, add pulsatilla or cimicifuga or macrotin or anemonin to your prescription. If the attack is a very painful one, the remedies can be given oftener, say, every half hour or hour. Later the patient may need the mixed laxative salines, as for instance equal parts of saturated solution of magnesium sulphate, potassium citrate, sodium phosphate, and potassium bitartrate.

Wm. M. Gregory.

Berea, Ohio.

THE PROPOSED ANTI-DISPENSING LEGISLATION

In the August number of Clinical Medicine, and again in our September issue, we referred to the proposed N. A. R. D. resolutions to suppress the dispensing doctor. These have been given wide publicity. Thus, several of the "family" have sent us copies clipped from the New York *Times*, with comments, evidently submitted by some druggist-reader of that newspaper. Last month we referred at some length to the campaign of vilification of the dispensing doctor, now being carried to the laity. A natural sequence of these articles is a letter which we have recently received from Mr. H. Irving Hancock, of the Ferguson-Hancock Laboratories, Blue Point, New York. It is so decidedly to the point, and so filled with suggestions which every doctor should take to heart, that we reprint a considerable portion of it, as follows:

As I am not a medical man, and not interested in any line of the medical business pecuniarily, my interest is wholly that of the citizen and of the man who wants to see cleaner and better medicines employed when they are employed at all. Probably any such law as the druggists seek would fall down under constitutional test; yet the aim of the druggists, of course, is to secure legislation that will ensure their legal right to put their hands in the pocket of every sick person. I know how many people of very moderate or straightened means, when they find illness threatening in their families, send for the homeopath or other dispensing physician for the reason that this saves adding a druggist's bill to a physician's.

Any such legislation against the dispensing physician, therefore, as is proposed, should be fought, first of all, by the great masses of people so poor that they gladly welcome the present opportunities for getting physician and druggist at the price of the former's bill. The public should be strongly enlightened on this point by letters and articles written to and for the lay newspapers in which it is shown that, with all the general increases in the cost of living, the druggists are now coming forward with privilege or graft legislation which can have only the result of doubling the cost of sickness for the poor man. If this play be made thus directly to the poor man, who has his vote, it will help to show legislators the folly of trying to enact any such legislation for the sole benefit of a numerically small part of the population.

It seems to me that all dispensing physicians should get together and keep this matter constantly before the public for the next few months, showing the public that it is *their* rights that the new move proposes to barter away. Physicians writing such letters to the press should constantly state that, if this proposed legislation gets before the state legislature, it will be raked fore and aft as an outrageous graft scheme against the poor man's savings-bank account. A lot of fighting slogans can be made out of this idea.

The druggists are trying to cover up their howl by declaiming against a physician "compounding" his own prescriptions, on the ground that the physician is not a pharmacist, and is not by training fitted to understand the niceties of compounding. In the mere matter of compounding doubtless this is correct, but I do not believe there are more than a handful of physicians in the whole country who would attempt to compound unless they have also had exact training in pharmacy. The trouble with the howl against "compounding" is that it is used as the screen to place before the word "dispensing."

Now, as to the physician's right to "dispense," any rational patient will agree that he engages his particular physician just because he believes that particular medical man *knows* what medicines to give him. Admitting all that may be said against nonpharmacist physicians "compounding," the whole theory of the state licensing laws is that the physician is the man who, by training, is supposed to know what drugs it is best to give a patient. Now, the dispensing physician—it doesn't matter whether he pins his faith to the Abbott alkaloids, the Merrell tinctures or Squibb's fluid extracts—has the great advantage, in buying his to-be-dispensed goods from a wholesale house, of knowing that his drugs are purchased from a concern having more expert chemical advice and aid than is possible with the small local druggist. In other words, the dispensing doctor who buys his medicines from wholesale houses is vastly more sure of the accuracy of the dose than any medical man can be who writes prescriptions that are filled by the small local druggist from stock of his own making.

The sign, "druggist and chemist," is a familiar one. How many druggists, ten years after graduating from a school of pharmacy, are capable of assaying their tinctures or fluid extracts and stating the dose-value accurately? The wholesaler, with a staff of practical chemists, can know, if he wants to, just what is the strength of any one of his preparations.

It seems to me that, if dispensing physicians everywhere write to their local newspapers, whenever legislation is threatened to prevent doctors from dispensing, and lay the whole graft of the proposition bare, it will show the druggists that they are entering upon a crusade from which they can emerge only with a severe scorching in the public mind. Such dispensing physicians can promise readers of newspapers that, when the legislation comes up before the legislature, the whole grafting idea will be raked fore and aft.

If you start a vigorous campaign, through all your medical friends, against this new game to graft the poor man's pocketbook or small bank account, and if this campaign is made in the daily, instead of in the medical press, the poor man's public will have the whole of the broad end of the game and will know what to do. The druggists are not strong enough, either numerically or commercially, to ride rough-shod over the poor voter's right to have some money left in his pocket.

This is exactly right. Let it be distinctly understood (we have said it often, but it may need repetition) that we have no fight with the druggist. In nine cases out of ten he is a square, honest business man, not especially interested in the politics or policies of his self-assumed leaders. We are intensely interested, however, in the welfare of the dispensing doctor—all doctors, for that matter—and for them we purpose to fight if necessary. If those who are trying to secure this inimical class legislation wish to go to the laity, well and good. In the end they will find that such a fight will bring them neither riches nor honor. The medical profession is becoming aroused and will respond in kind, going with their side (which is the people's side) to the masses, along the lines suggested by Mr. Hancock. We recommend every reader of CLINICAL MEDICINE to read this letter very carefully, and to lay it aside for future use. Meanwhile, be alert, and wherever opposition to your interests raises its head, be ready with a club.

ALCOHOL BATHS

Many of my patients believe that an alcohol bath is just *the* thing. I have never prescribed alcoholics for medicinal purposes and do not use medicines containing alcohol if I can use any other preparation.

It only recently dawned on my dense brain that I should advise my patients to cut out the alcohol baths and use something else. (I have always been known as a temperance crank.) I find little or nothing in the books to guide me and should be pleased to have some of the CLINICAL MEDICINE "family" write something on this subject for the journal.

E. R. BUCK.

Hudson, S. Dak.

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[In spite of the weighty example of the prince of all multimillionaires, Mr. Rockefeller, I do not believe in alcohol baths, or make any use of them. In the application of external remedies we should be governed by settled principles, and by knowledge, not by imagination. I do not know of any use which can be attributed to an alcohol bath, further than what is obtained by the rubbing.

Suppose that we wish to stimulate the skin, to bring the blood to the surface, where it will meet the oxygen of the air, increasing its stock; then the thing to use is a salt bath. This may be either salt sponging, hot or cold; or, what is an excellent method, dip a coarse towel into strong brine, hang it up and let it dry, and after an ordinary bath use it to rub the body. This can be done until the skin is quite rosy. This is not only a useful procedure in the way of increasing the oxygenation of the blood, but it helps to keep the skin smooth and clear of imperfections. It gives an ivory-like texture to the skin, which the ladies think very desirable, and which is not unpleasant to the sterner sex.

Dr. Burgess of Tennessee has shown that unsuspected therapeutic values lie in the application of epsom salt to the skin. I would refer you to his book for further information on this ubject Many observers have noticed a remarkable stimulant power following the use of ammonia in the bath. A tablespoonful or two of ordinary household ammonia in a bathtub of water is said to impart a delightful freshness to the

bath, and a sense of comfort and exhilaration to the person using it.

The ancients employed baths of milk for nutritive purposes. I know the skin will absorb a good deal of nourishment, for I have rubbed lanolin and codliver oil into it to round out the contours, and found it successful.—ED.]

AN EXPERIENCE CHAPTER

I am sending you under separate cover a picture of myself, my grandson and my granddaughter, taken in my only means of conveyance. My grandson is twenty-one months and my granddaughter is thirty-nine months old. We have only one child, the mother of these babies, and she lives in Texarkana.

Dr. Wm. A. James and grandchildren, Chester, Ill.

While home this summer I would strap the children into the automobile with shawl straps run through the cushion springs. They could neither bounce out nor get out and would be with me two and three hours at a time. While making a call one morning the young lady of the house came in and said, "Doctor, one of your babies is crying out there."

I finished my call and went out to investigate. I said: "Katherine, what is the trouble?"

She said: "Jimmie wouldn't keep still and I bit 'im."

Jimmie had a right to cry.

I have been using the alkaloidal granules for the past seventeen years, and I will add right here that but for them the little fellow would not be in the picture. When he was three and a half months old he had a very severe attack of bronchopneumonia. I thought for three days that I should lose him, but with the assistance of the granules he made a complete recovery. In former years, under the old plan of treatment, he would have been like David Harum's little boy. I seldom lose a case like the above now, thanks to the granules.

I had two cases some years ago of two old people, man and wife, both in bed at the same time with bronchopneumonia. They were both near seventy. I put them on my usual plan of treatment and for three days the cough grew tighter, the breathing more difficult and the temperature went higher and higher. I saw that something had to be done, and done quickly, or we should have a double funeral. I put them on a solution of aconitine, the anodyne for infants, cactin and sanguinarine nitrate. The next day they were better and continued to improve right along. The little granules again!

I have had two very severe cases of typhoid fever recently and both made excellent recoveries. The little granules again, plus intestinal antiseptics. I very seldom lose a case of typhoid fever any more.

In high temperatures of little people with nervous excitement bordering on congestion of the brain I add gelsemin until I get "effect," and it is seldom that I do not get the effect desired.

I had a case of meningitis in a little girl one and a half years old and cutting teeth at the same time. Her temperature ranged from 101° to 104.5° F. for three weeks. By the use of the alkaloids, with the application of ice-water to her head, the temperature could be kept down. Her little curls had to be sacrificed but we saved the girl. Whenever the temperature would rise we would give the solution oftener and apply the

ice-water more frequently until it was reduced.

My way of applying cold to the heads of little folks is probably different from the usual mode. I have a cap made of old cotton flannel that will absorb water readily and that will fit the head snugly, then nearby have a little water in a pan with a chunk of ice in it. I instruct the nurse to take a small cloth, kept in the ice-water, and squeeze the cold water on the cap often enough to keep it cool, even though it require this every five minutes. The hotter the head the more evaporation, and it takes heat to evaporate water so you cool the brain and lower the fever. By placing the hand on the cap you can always tell when it is necessary to use more ice-water. It can all be done without any danger to the brain and without disturbing the patient.

My little patient is now four years old and as bright and active as one would wish to see.

I have a case of exophthalmic goiter that I am treating. She is a married lady, age thirty-five, and the mother of five children. She had been ailing about six months. I used various remedies, among them thyroidectin. She continued to grow worse right along. I sent her to a specialist, May 11, and he suggested an operation, to which she objected. She went on to her sister's in a small city near St. Louis. She was under treatment there from May 11 to July 20, when she came home and under my care again. I put her on lycopin, gr. 1-6, two such doses four times a day, and the arsenates of iron, quinine, and strychnine, with nuclein, four times a day. I increased the lycopin gradually until she is taking 1 grain four times a day with two tablets of the triple arsenates and nuclein four times a day. She has made a splendid improvement in the past thirty days. Her pulse has dropped from 135 to 105, her nervousness is much better, the goiter is smaller, the choking sensation not so great, and she is sleeping very much better. She says she feels decidedly improved and is gaining in weight. Of course it is too soon to tell what the outcome will be but so far the result is very gratifying.

When I get started on the alkaloids I am inclined to be like Tennyson's brook, so I would best put a dam across it. Please do not put one upon it.

Wm. A. James.

Chester, Ill.

[No dam (of any kind) for you, Doctor. Let us have another chapter.—Ed.]

A CASE OF PUERPERAL ECLAMPSIA WHICH DID NOT TERMINATE FATALLY

Mrs. E. C., age 33, mother of two children aged eight and four, called on me March 15, 1910, at which time she was eight and a half

Dr. L. F. Van Amberg, Melrose, Ohio

months pregnant. She called to see about her feet, which I found to be moderately edematous. A specimen of her urine gave a specific gravity of 1020. No tests were made for albumin. The patient assured me she would be confined before the expiration of the month. I ordered her to bandage the feet and legs up to her knees and to keep the bowels loose with laxative salines and await delivery.

I was called at 9 p. m., March 31, to attend her in labor, which was normal in all repects

and was concluded at 11:30 p. m. I remained with her until 1:30 a. m. About an hour before I left the patient complained of "hurting" across her chest. I gave her 1-4 grain of codeine, and when I left she was feeling comfortable.

April 1, at 6 a. m., the nurse telephoned me that my patient was having severe pain in her head and was vomiting. I ordered her to give another tablet of 1-4 grain codeine. At 6;30 she telephoned me that the patient was sleeping, but at 7 a. m. I was advised to "come at once, the patient has just had a terrible convulsion."

Eight a. m. found me at her bedside (after having gone seven miles). I found my patient in a semiconscious state, with considerable rigidity, and labored respiration; she could be aroused enough to swallow liquids.

At 8:15 I began treatment by giving 1-2 grain elaterium. I also prepared a solution each teaspoonful of which contained:

Chloral hydrate, grs. 2; spec. med. veratrum viride, gtt. 1-4; spec. med. belladonna, gtt. 1-4; spec. med. gelsemium, gtt. 1-4; spec. med. cactus, gtt. 1-4. I gave a teaspoonful of this mixture every fifteen minutes. I also began administering nascent oxygen, which I used almost continuously for two hours, when by rupture of a tube the generator was made useless.

At 9:15 I gave another 1-2 grain of elaterium, and at 10 a.m. 6 grains of calomel. The chloral mixture was given until 4:30 p. m. Patient was catheterized at 1:30. Chloroform was given as soon as convulsions began and continued only during the seizure.

At 4:30 the patient was unconscious. Total number of convulsions seven. She was now placed under chloroform and not allowed to have another convulsion.

At 5:30 I gave croton oil, 2 drops mixed with glycerin, 2 drops, on the tongue. Bowels began operating at 7 p. m. There was no use trying to count the number of movements; she was discharging watery evacuations all the time. The patient's bed was protected with a rubber sheet over which blankets were folded. These were changed three times before midnight and twice between midnight and 4 a. m. Each time the blankets were saturated. The patient was kept under chloroform until 3 a. m. I gave cactus hypodermically at midnight, also at 4 a. m. Bowels kept active almost all of the ensuing day.

April 2, the patient awoke at 9 a. m., rational. Her temperature stood at 99 throughout the day. Pulse 110.

April 3, the temperature came up to 100.8° F.; pulse 118. Lochia became fetid. Gave her echafolta, 5 drops every hour. Hot douche every three hours. (Ordered calcium sulphide from Chicago, as I was entirely out of supply.)

April 4, temperature came up to 101° F. and discharge was terribly offensive. Increased echafolta to 15 drops hourly and gave nuclein, two tablets every three hours. Laxative given.

April 5, temperature 101. Night sweat. Treatment continued.

April 6. Temperature at noon hour 101.4° F., at which time I began using calcium sulphide, three granules every two hours, also gave echafolta, 15 drops every hour, and two tablets of nuclein every two hours. The uterine discharge was terribly offensive. Three days of treatment brought everything normal. Patient improved rapidly. I continued this treatment for five days, when I placed her on iron and nuclein. Improvement was continuous.

May 5. Patient up and around caring for her babe and overseeing the household. Had convulsions begun before delivery I should have treated the case the same and attended to the delivery later. I believe elimination to be of main importance in this disease. I have treated three cases as herein stated, and all recovered. I have never known of a single recovery where the main effort made was to control the convulsions with anodynes and elimination was neglected.

L. F. Van Amberg.

Melrose, O.

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[Dr. Van Amberg is dead right in putting the emphasis upon elimination. Though not altogether pleasant, the catharsis induced by

elaterin and croton oil is exceedingly effective. In addition we advise the use of veratrine, given hypodermically, "to effect," as shown by slowing of the pulse. In threatened convulsions a granule of the veratrine may be given every ten minutes by the mouth. Hyoscine, morphine and cactin will control the convulsions.—ED.]

AN EXCELLENT PRESCRIPTION

We have borrowed one of McCutcheon's cartoons from the Chicago *Tribune*. Though it is a little late in the season, there are still some of your patients who might be benefited by this prescription. How about taking it yourself? I know a good place! And where they are big!!

HIS DOOM!
"Prepare to hear the worst. You must give up business entirely—for a couple of weeks. You must leave your dear ones at home and seek health and quiet in some secluded spot, say near a lake or a stream. You must not exert yourself in the least, unless it is a big one. You must give up smoking and drinking entirely and absolutely—between the hours of midnight and six a. m. I am sorry to be so severe but your condition demands the most rigorous treatment."

A CASE OF SUPPOSED TYPHOID FEVER AND HORSEMINT BATHS

I have had a recent experience in a case which I called typhoid fever.

I was called to see a very delicate girl, about six years of age, on Monday. She was taken ill on the Saturday previous. I felt her pulse, which was strong, and a little accelerated. Temperature 104.5° F. the first day. Very slight nocturnal remission for the first two or three days. In about five days there was a decided morning and nocturnal remission. In a few instances her axillary temperature was 105° F. Skin very dry. There was hebetude, complete anorexia, great thirst.

My course of treatment was as follows: A purge of fractional doses of calomel followed by salines. Then I put her on a combination of zinc sulphocarbolate and salol. I also used some acetanilid, which a good many condemn, but I have always been very careful and have had success with it. I used caffeine citrate for the headache, She always complained of headache, pain in the neck, and her stomach was very tender. In eight days she did not have any fever. I ordered cool sponging every three hours, ice-packs, milk diet, etc. I let her eat ice-cream, and gave her soda-water to drink. Some say that the latter will increase meteorism, but I had no trouble in my case. My principal remedy was the zinc sulphocarbolate with salol, in connection with sponging.

Was this case one of typhoid fever? Some of the neighbors have become very skeptical because the fever lasted only nine days at the longest. The little patient had delirium at night and sometimes in the day. The only thing I have to deal with now in her case is a tonsillitis that is very annoying. As I have not had so many cases of typhoid as the elder brethren I want to hear from the fathers of the profession. I am treating another case the same way.

Do you know anything about or have you heard of horsemint for bathing in typhoid fever? I will say, gentlemen, if you boil the whole weed and give your pa-

tient a good hot bath in this water, then wrap him up and let him sweat, it will bring down the temperature when other remedies have no decided effect. I am not an "herb doctor," but I have tried this with good results following. I want to know if there can be any efficacy in this course, or is the improvement merely imagined by me? I know that horsemint is carminative, diuretic, etc., when given internally, but of its external action little seems to be known, so far as I can learn.

A. L. SANDERS.

Purcell, Okla.

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[Dr. Sanders does not give data enough for us to express an authoritative opinion. The case certainly *looked* like one of typhoid fever and it was good sense to treat it as if it were such. A Widal test, made after the first week, even during the period of convalescence, will generally dissipate any doubt as to the doctor's diagnostic accuracy. Physicians should resort to the laboratory much more often than they do. Most of us do not appreciate what a tremendous help such reports may be.

We hardly need to say again how enthusiastic we are with regard to the sulphocarbolate treatment. The beauty of these salts is that while they effectively "clean up" the intestinal tract they are practically free from toxic action. Most of the phenol derivatives are broken down within the body, with danger of subsequent carbolic-acid poisoning. Even salol is not entirely safe, inasmuch as smokiness of the urine not infrequently follows the use of even moderate doses.

The scientific name of horsemint is monarda punctata. It contains an abundance of essential oil, oleum monardæ, yellowish or brownish-red in color, of a sharp taste and aromatic odor. This oil has been shown to contain more than 50 percent of thymol. Is it not possible that thymol when applied to the skin may have an antipyretic effect somewhat similar to that of guaiacol? Internally used, horsemint is carminative, diuretic and diaphoretic. The oil is used locally for the relief of pain, as in neuralgia. However, what about the action of the hot bath itself?—ED.]

THE CHARLOTTE SANATORIUM

We have just received the first annual report of the beautiful Charlotte Sanatorium. We are especially interested in this institution because our old and good friend, Dr. Register, of *The Charlotte Medical Journal*, is the vice-president and we presume one of its leading physicians. The Sanatorium seems to be a splendid institution, and judging from the report of cases, it is already doing good business. Physicians living in the contiguous territory will do well to correspond with Dr. Register.

OBSTINATE HICCOUGH

Since beginning the practice of medicine it has been my lot to treat quite a number of cases of obstinate hiccough.

Dr. J. D. Hayward, St. Louis, Mo.

I shall briefly mention some of the methods I find useful in combating this distressing condition.

Hiccough is a spasmodic action of the diaphragm while at the same time there is a sudden closure of the glottis during the inspiratory act. We may correctly assume that the sensory disturbance is conveyed to the center by the pneumogastric, at which point it excites a motor impulse which is reflected over the motor filaments of the phrenic and recurrent laryngeal nerves to the muscles of the diaphragm and glottis.

On one occasion I was called to treat a lady at the St. John's Hospital. She was almost exhausted from persistent hiccough-

GALLERY OF POPULAR FAVORITES

DR. JOSEPH MacDONALD, Jr.
Of East Orange. Member of the Board of Education. Managing Editor American Journal of Surgery; President of the American Medical Editors' Association, Officer of Grand Commandery K. T. of New Jersey

ing which had continued three days, resisting all medication. I was able to control this condition by applying firm pressure for about three minutes to the phrenic nerves, over the scalenus anticus muscles. The hiccough never returned, and the patient recovered from a surgical operation which she had just undergone.

In another case I met with success by reinforcing the above treatment with the use of Dana's method, which consists in laying he patient upon a table in the supine position with the upper half of the body hanging over the end. It will be seen that this arches the thorax, spreads the ribs and brings tension on the diaphragm, inhibiting the spasm.

It is sometimes advisable to have an assistant make intermittent traction on the tongue while the foregoing is being applied. Don't leave your patient without applying hot applications over the cervical spine and a bandage around the body. Give a hypodermic of hydrochloride of pilocarpine. This condition calls for antispasmodics, which are best administered in the form of the active principles or other exact remedial agents, such as hyoscyamine, cicutine and monobromated camphor. And remember the advice to "clean out, clean up and keep clean."

J. DAWSON HAYWARD.

St. Louis, Mo.

[I am glad Dr. Hayward added that last sentence, especially the advice to "clean out." I remember one case of hiccough that resisted all the sedatives and all the pet expedients. A *big* dose of castor oil (two ounces), thanks to the copious evacuations which followed, made a cure!—ED.]

MACDONALD—"A POPULAR FAVORITE"

In the Orange (N. J.) *Daily Chronicle* we see the picture of Dr. Joseph MacDonald, Jr. as a member of that newspaper's "gallery of popular favorites." We are reproducing the picture herewith. It will be noted by the caption that Mac is a "concentrated citizen." We can further testify that as a man he is a prince, and in business a booster of the first rank. His journal needs no praise—a sample copy carries conviction as to its merit.

A PROTEST FROM AN ARMY DOCTOR

In THE AMERICAN JOURNAL OF CLINICAL MEDICINE for August, there appears an article by Dr. Charles Stuart Moody of Idaho. On page 849 of the journal he makes reference to the Field Chest of the Army Medical service which, to say the least, I think disrespectful. I quote the words: "I

shall not even *unlock* the handsome medicine-chest filled with archaic remedies furnished the state troops by the United States Government, but shall confine myself to my case of alkaloids entirely."

This, from a medical officer of the organized militia, might, perhaps, lead a few to believe that the Army Medical Department was using the medical supplies which Noah left after his exit from the ark. To correct any false impressions among readers of this article, I wish to say the following:

From what I know of the medical practitioners in private practice, and of the army medical officer, the latter is years ahead of the great majority of practitioners in private practice both in the diagnosis and treatment of disease. Every appliance, drug or serum is given him that he may be so. The therapeutics of the future, from all present indications, will be in the nature of serums and vaccines. In this department of therapeutics the Medical Department of the Army is the leader.

The "handsome field-chest" and contents, of which Dr. Moody speaks, is the same one used by the U. S. Army as a field-chest. If Dr. Moody would only *unlock* it and see what it really contains he would find that it contains some of the alkaloid "epsom" of which he writes.

After much experimentation and deliberation the contents of the field-chest have been selected because of their compactness and value in campaign. Among them are the following:

Amyl nitrite pearls	Arsenic trioxide
Magnesium sulphate	Bismuth subnitrate
Acetphenitidin	Caffeine citrate
Boric acid	Codeine
Calomel	Apomorphine hydrochloride
Atropine sulphate	
Digitalin	Cocaine hydrochloride
Hyoscine hydrobromide	Glyceril nitrate
Quinine hydrochlorosulphate	Morphine sulphate
	Strychnine sulphate
Quinine sulphate	Potassium iodide
Salol	Alcohol
Sodium salicylate	Aromatic spirit of Ammonia
Glycerin	

This is about half of the complete list of medical contents, and I can see nothing "archaic" about it. Even if Noah had given Ham a little calomel at night and a little magnesium sulphate in the morning this would not detract from their usefulness at the present day. Even a little "nip" of a dilute solution of the alcohol which Noah no doubt had use for would not be considered absolutely bad treatment by many of our present-day practitioners.

To conclude, I, myself, see very little difference between the contents of the alkaloidal case and the field-chest of the U. S. Army, and in my opinion any broad-minded man could easily adjust himself to the use of either, especially in a manuever or real campa gn.

PAUL W. GIBSON.

Yellowstone Park, Wyo.

VERATRUM AND VERATRINE

Dr. George L. Servoss of Fairview, Nevada, is investigating the action of these two remedies in the treatment of puerperal eclampsia and will be very glad to hear from anyone who has had experience with either or both.

MORE SUGGESTIONS FOR THE YOUNG DOCTOR

The medical student, as he starts out into the world with his diploma, is like the prospector out west starting to look for a paying mine. He may find one and he may not, but the medical graduate who has a drug-store experience beforehand, and is a graduate of pharmacy, has a big advantage over the graduate who has had no pharmaceutical experience.

I believe that therapeutics is the most important branch in medicine, and therapeutics is the most neglected study in all of the medical colleges of America. It would be far more desirable if the preliminary requirements for entering a medical college included two years in a pharmaceutical college rather than the same time in a high school or college. The young medical graduate is compelled to study the treatment of

different diseases as the books advise, but had he a thorough knowledge of therapeutics he would meet the symptomatic indications in the patient with the required drug or drugs, even before a diagnosis could be made, and that is also where the "alkaloidal" man gets a big start on all diseased conditions. He treats the patient with positive medication, and diagnoses his case later.

Dr. B. H. S. Angear, Sublette, Ill.

I have been an "alkaloidal man" for twelve years. This is due to the constant drilling that my professor in Practice of Medicine, twelve years ago gave me—Prof. W. F. Waugh. It is his insistance upon the alkaloidal treatment of diseased conditions that gave me a foothold in the medical profession, and to keep that foothold I find the following things necessary, which I pass along as "advice" to other young physicians:

Spend three or four days every month at some good clinic.

Never allow yourself to speak disrespectfully of or cast any slurs on any fellow practician. Let the other fellow run you down all he wishes. Knocking never hurts. It is the pig that is hurt that does the squealing.

Spend some money on new books, study new things, and above all keep yourself and your office looking modern and up to date. If you do these you are bound to succeed.

B. H. S. Angear.

Sublette, Ill.

"GIVE US EFFICIENCY"—A SOCIALISTIC CRITICISM

Your opening editorial in the August number, "Give Us Efficiency," leads me to refer, in a few words, to your illustration of the work going on in the factory. Look around, if you please, and you will see factory goods for sale on all sides. It would seem as though too many goods were being produced, and not sufficient money among the populace to buy them. This overproduction, as some call it, but which in reality is underconsumption, is what brings on panics; and this condition now exists to such an extent that millions of willing workers are experiencing a panic-effect all the time. So this condition is due to the lack of money earned, more goods being produced than the wages of the masses will buy back.

Statistics show that commodities to the value of twenty-five billion dollars are brought into existence every year, and labor does it all; and yet the same statistics show that the amount of wages received for the work is less than six billion dollars. In the factory line the need is not more goods but more money to the producer.

A worker puts his life into his work, and anybody getting any portion of the product is taking a part of that worker's life.

Let us be consistent and help the workers get justice. Let us help them to free themselves from this unnatural condition. Let us help give the workers the social value of their labor, which is more than five dollars

a day for eight hours. If we do this, no man will need to send his children to the factory. This would take 2,000,000 children—future parents—out of the factory and send them to school. It would save them from a stunted life and give all freedom. No man would then allow his wife to be a wage-slave to another man. Prostitution would practically cease. Political corruption and graft would disappear, and instead of bearing the ills of society, people would actually live.

Compared to the doing away with the heinous crime, the robbing of the workers of fifteen billions of dollars, which forces the things enumerated, the efficiency of medicine is as nothing, since the removal of this robbery would remove nine-tenths of all accidents and practically all occupation-diseases, three-fourths of which could be avoided if we could eliminate the unfavorable conditions of work.

Suppose you give this question "five minutes of thought a day" for a month. Order from Chas. H. Kerr & Co., 118 Kinzie St., Chicago, Ill., a copy of Rev. Chas. Vail's "Scientific Socialism," remitting 32 cents, and learn a colossal truth.

Geo. B. Kline.

Wheeling, W. Va.

ECONOMIC FACTORS IN DISEASE

In last month's issue of Clinical Medicine (August, 1910) the quotation from Dr. Cabot's book, "Social Service and the Art of Healing," strikes a very tender chord in my heart. For many years the evolution of disease, especially from the standpoint of economic environment, has engrossed much of my attention. And being naturally sympathetic and of an altruistic and patriotic turn of mind, I have given the subject a great deal of study.

As I study and reason back from effects, i. e., the disease, to its cause or causes, whether primary or remote, the conviction grows on me that from nine-tenths to nineteen-twentieths of all our diseases and premature deaths are due solely to easily avoidable causes inhering in unnatural economic conditions. Moreover, these causes producing not only disease but poverty, crime and race suicide generally are increasing much faster than the increase of population, notwithstanding all our wonderful advancement in surgery, therapeutics and prophylactics.

Is proof needed of these assertions? It shall be forthcoming, although space forbids that I should give more than a few lines—just enough to serve as an eye-opener.

A comparison of the census reports from 1850 to 1900 and the forthcoming abstracts for 1910 show that, while our population has increased about 170 percent, crime has increased 445 percent. From these official sources, and further from the Labor Report, to Congress, of Carroll D. Wright we learn that both the renters and the out-of-work classes are increasing three times as fast as does our population. Less than 9000 of the 400,000 homes in New York are owned by their occupants free from debt. In 1889 15.1 percent of the laboring people of this country were unemployed. By 1889 this class had increased to 22.3 percent, and in 1903 it was 49.81 percent.

These conditions have been greatly aggravated by the financial depression beginning in 1907. In 1908 it was estimated that about 6,000,000 laboring men were out of work either all or much of the time. Counting five to a family, this means that some 30,000,000 of our people, or about one-third of the population, were having a hard fight to keep the wolf from the door.

As to the causes of this unemployment, the 18th Labor Report states that 56.96 percent were due to "closed establishments," 23.56 percent to sickness, and only 26 percent to intemperance.

Our prohibitionists who assert drunkenness to be the cause of most of our idleness, poverty and disease, should make a note of this official report presented to Congress after a most diligent canvass of all the various lines of occupation in more than thirty states.

Add to this the fact that the cost of living to consumers has increased about one-third during the last decade, and that without a corresponding increase in wages. Note also

the fact that the multiplication of labor-saving machinery, throwing men out of work, continues. The natural increase of population and the consolidation of the great financial interests into trusts and combines also keeps pace with the increase of the out-of-work classes. Competition among those seeking work grows sharper every day, therefore their income must decrease relatively.

So, then, we have the conflict between the relatively few: on the one hand capitalists, who own the railroads, mines, factories and all the best-paying industries, and the millions of propertyless consumers on the other.

And this is the class-conflict, one which is growing fiercer with each passing day. "Oh what shall the harvest be?" I dare not elaborate. But I beg of the 30,000 doctors who read THE AMERICAN JOURNAL OF CLINICAL MEDICINE to read between the lines, to think—to think of the millions looking for work; of their loved ones, watching, brooding, waiting; of the other millions whose jobs are so uncertain; of still other millions on starvation wages; of the 1,700,000 wage-slave children in the factories of the southern states, whose bodies and souls are being ground into gold to satisfy the greed of capitalism. My good doctor, pray think of the slow starvation of the toiling masses; of the unhygienic conditions into which they are forced; of the "heavy-brooding men, the tired, anxious women, the thinly dressed, unkempt little girls, the frail joyless little lads," as Hunter, in his "Poverty," has put it.

And all this going on in the midst of natural resources the most abundant!

Surely, most of our diseases have their roots deep down in the poverty, ignorance and unhygienic conditions which grow naturally out of our crazy, beastly economic system. We are financial cannibals. The future historians will so write us down.

And, now, what of the remedy?

First of all, the remedy must be an economic one, inasmuch as the disease of the body politic is of an economic nature. Cooperation must succeed the present competitive system. The nation must own and operate, in the interest of all the people, all the great natural monopolies, just as we publicly operate the schools, the mails, and numerous other affairs of society. This will settle the poverty question. Under such a system every man would be sure of employment and of receiving the full results of his labor, whereas now out of every dollar he earns by his work he gets but seventeen cents. It will settle the strike-problem by doing away with the cause of all such catastrophies. It will do away with all warfare forever. It will give every man who so desires a happy home—the strongest fortress of any nation. It will lay the ax at the root of intemperance, of prostitution, and of all crime. It will repress the demon and encourage the angel in every individual. Best of all, it will do more than anything else to hasten the time foretold in the Bible, when none shall say, "I am sick," when "a child shall die a hundred years old." It will replace the present rule of gold by the golden rule. It will pave the way for the coming of the "new heaven and the new earth wherein dwelleth righteousness." I believe doctors should lead in this most noble work.

S. J. BROWNSON.

Arlington, Tex.

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[As it is our policy to give our readers a chance to be heard on every question raised in our journal we are printing this month two representative articles from doctors who are also socialists. Let it not be assumed that we indorse their position, or that we believe that the remedy which they propose for the evils, some real and some imaginary, which they recite is the only one of value, and a "specific". That, with the changing of society following the absorption of the land, the marvellous increase in labor-saving machinery, and the consequent growth of great fortunes side by side with widespread poverty, these are great problems pressing for solution no thinking man can deny. The evils are here and must be abated. But some of us still believe that no new order can be established and persist which goes counter to that great law, which is essentially individualistic—the law of natural selection. It is *initiative*, after all, which is behind progress,

and no man can tell to what degree this might be prevented or destroyed by the coming of the socialistic state. It is untried, an experiment, a leap into the dark. However, lest we may be tempted to reply to these excellent presentations, with the spirit of which we are fully in sympathy, we will invite some reader of CLINICAL MEDICINE to present the other side. We can print but a single article, and this must be a short one —say 1500 words at the most. Who will volunteer? With that article the discussion must be closed.—ED.]

OPENINGS FOR PHYSICIANS

There is an excellent opening for a lady physician in a South Dakota city of 5000 people. An alkaloidal practician is wanted. We shall be very glad to put the right party in touch with this opportunity. We suggest that if you are a lady physician, an alkaloidist, looking for a promising location, you communicate with us at once.

We have also been asked by a Colorado land company to find a bright young doctor to locate on their colony. About 1000 people tributary.

QUININE IDIOSYNCRASY

A patient of mine cautioned me not to give her any quinine, as she could not tolerate it. With no idea of administering it, but for the sake of its admirable tonic effect, I gave her the arsenates of iron, quinine and strychnine with nuclein, four granules three times a day. The next time I saw her she was all right, but said she had to stop the pills before they were used up, because of the quinine effect. She had discovered the presence of quinine before she had taken a third of a grain of the arsenate, divided into 1-67-grain doses.

I haven't given the name of my patient, date, number of her children, husband's occupation, or anything by which she, or her neighbors, can recognize herself if this should accidentally get into her hands. Maybe this spoils any good effect the item might have, but it would fill me with honest glee to hear of some one of these doctors facing a suit for damages after publishing one of their verbatim copies of their private case-records, identifying their patient so that any blackmailer could locate her in an hour, and all to no purpose, but to fill out the column.

"C."

[There is considerable worldly wisdom in our correspondent's concluding paragraph. While it is important to have every detail concerning the case which may possibly throw light upon it, we need not say too much about the patient, *nor about the professional competitor*. Essential facts are wanted—and these boiled down to the limit. —ED.]

ECHINACEA IN SNAKE BITE AND INSECT STINGS

Anent the contribution of Dr. I. N. Moyers in your August number I wish to say that I use echinacea, not only in snake bites but in bites and stings of other venomous animals and insects. There may be a difference in the echinacea and consequently no argument. I have used Lloyd's and found it good and effective. I have had a similar experience with Merrill's, and I have used Abbott's, containing absolutely no alcohol, with invariably good results.

Perhaps there is something in my manner of treatment. My method is: First, bandage above the bite if in a limb; then make a free incision and allow the poison to flow away as much as possible. This wound I now dress with gauze saturated with fluid extract of echinacea or Abbott's tablets, crushed, and sufficient warm water added to make a thin paste. I invariably give the patient a hypodermic injection of digitalin. I follow at once with a tablet of echinacea every half hour, dissolved in warm water, or rather crushed and mixed with warm water.

For spider bites and stings of scorpions I do not make an incision but rely on sucking the wound, as a rule injecting digitalin, and give echinacea, as in snake bites. As to whisky or alcoholic drinks, it never enters my

head to prescribe them and I do not allow them given if suggested.

I have seen several infants dead from other treatment (or no treatment) as a result of scorpion stings. I never lost a single one under digitalin and echinacea. Consequently I believe in the efficacy of the treatment.

I never use alcoholic stimulants in these or any other cases. The longer I live the more I become convinced that alcoholics are injurious both in health and disease.

F. D. GREEN.

La Dura, Sonora, Mex.

[It seems by this letter and the one that follows that echinacea is not without friends. As a matter of fact there have been hundreds of communications to the medical press by physicians who have used this remedy in the treatment of snake bites and found it good. The eclectics, particularly, have always claimed unusual virtues for it in such conditions and the mass of substantiary evidence is large.

Echinacea was apparently first used medicinally by Dr. H. F. C. Meyer, of Nebraska, about 1870. He brought it to the attention of Prof. John King, of the Eclectic Medical Institute, Cincinnati, and among the claims made for it, in the former's correspondence with the latter, was that it had an antidotal action upon the bites of various insects, and especially of the rattlesnake. Meyer stated, according to the "American Medical Dispensatory, that he even allowed a rattler to bite him, then bathed the wound in the tincture, took a dram-dose internally, and the next day was none the worse for the injury.

Prof. King, in commenting upon this incident, said: "He even kindly offered to send the writer a rattler eight feet long, that the antidotal influence of the tincture upon dogs, rabbits, etc., bitten by said serpent might be tested; but having no friendship for the reptile, and being unaccustomed to handling the poisonous ophidian, the generous offer was courteously declined."

While the glowing reports of some of the earlier users of this remedy may have been rather highly colored, the clinical tests to which it has been put have been so many and so trying that it seems unwise to deny that it has very great value. In our opinion it is a remedy deserving of a very extended use.—ED.]

SNAKE BITES IN ARIZONA DESERTS AND MOUNTAINS

I received my first copy of CLINICAL MEDICINE this morning and it being new to me I read the advertisements and all. If I may be permitted to answer I. N. Moyers of Speedwell, Tenn., I may be able to help him. I was surgeon for several gold mining companies in Arizona, located in the mountains and in the desert, and have had some

Dr. P. G. Capps, Cisco, Ill.

experience with the rattler, centipede, scorpion, tarantula and other "varmints" of that country.

I have fitted out quite a number of prospectors and cattlemen with emergency cases for the treatment of bites and stings and my advice is as follows: In the case of snake bite, tie off the wound at once with anything handy, i. e., a rope, bridle-rein, belt, shoe-

string or handkerchief; twist tight; suck the wound if possible at once, then cut it open in the form of a cross; push one or two tablets of potassium permanganate, one grain each, to the bottom of the cut; inject another tablet around the wound by ten or fifteen punctures into the muscular tissue. Give 1-15 grain of strychnine every thirty

Dr. P. G. Capps in "wild-west" style

minutes, or as often as necessary. Gradually loosen the cord. Use morphine to control the pain and hyoscine for delirium—from 1-100 to 1-8 grain.

My assistant and I on one trip through the mountains agreed on starting to suck the other fellow's wound in case of a bite.

My emergency case for those who wanted it on trips consisted of a hypodermic case, syringe, water, one tube tablets, one grain each, potassium permanganate, one tube 1-30 grain strychnine nitrate, one tube morphine, 1-4 grain, and atropine, 1-150 grain, and hyoscine, 1-100 grain. A pocket or hunting knife or safety razor will suffice to lance the wound. Better an abscess than a dead man.

This is the recognized treatment for such cases as argued out by the State Medical Association of Arizona.

This treatment does not provide for the hydrophobia skunk. For that I used the Pasteur Institute treatment of Chicago with success in two cases, with no mortality.

Whisky won't keep on the desert or mountains. I very seldom saw any five miles from camp. We worked without it.

P. G. Capps.

Cisco, Ill.

ECHINACEA IN SNAKE BITE

In the August issue of Clinical Medicine Dr. I. N. Moyers of Speedwell, Tenn., reports a case of a young man bitten by a copperhead snake, treated ineffectively with echinacea. The doctor says: "I soon found that it was a fact that echinacea, which has been claimed by a few to control snake venom, was as worthless as a hundred other vaunted remedies." He praises whisky as the most reliable remedy in conditions of this kind. He says he used echinacea in large doses, but does not tell us what preparation he employed, or the dosage. These would be interesting facts.

Is echinacea of value in snake bite? The eclectics claim that the antidotal effect of echinacea is not only quicker but more thorough and more certain than that of any other known remedy employed for the relief of such dangerous conditions.

Lloyd Brothers of Cincinnati publish a pamphlet containing reports from twenty-five physicians practising in the southern states where venomous reptiles and insects abound and where snake and insect bites are of common occurrence. These reports embrace thirty cases of poisonous insect bites and stings, including tarantulas, centipedes, stinging lizards, spiders, red ants, bees, etc., and twenty cases of snake bites, including those of rattlesnakes, copperheads and moccasins. In all these cases echinacea was relied upon solely as the remedial agent, Lloyd's echafolta and specific medicine echinacea being the preparations used. In two cases only (spider bites) was there apparent failure. The remedy was employed both locally and internally in doses ranging

from 15 drops to a teaspoonful or more every half hour or hour until improvement was manifest.

Now, can it be possible that all these men were mistaken? Is it possible that a worthless remedy could produce the satisfactory results reported by a score or more of competent therapeutists? No fatalities are mentioned though some apparently hopeless cases are described. Echinacea is given credit for the results obtained, the swelling and pain subsiding rapidly after the administration of the remedy "to effect."

Is echinacea a dependable remedy in accidents of this sort, or is there something better? Will those who have had experience tell us?

J. L. SHEPPE.

Mt. Sidney, Pa.

ECHINACEA IN SNAKE BITE

I have just finished reading Dr. I. N. Moyers' article on snake bites, in THE CLINIC. I want to ask the Doctor what he would give if he lived in a country where he could not use alcoholic stimulants. I have treated many cases of snake bites where it was impossible to get any whisky or other alcoholic stimulants at all, and I have never lost a single case. What would you use for stimulation in such a case, Doctor? I will tell you what you would use. You would use the best stimulant that our Pharmacopeia gives, and that is strychnine.

I want to give you a short history of some cases I have treated in the last few years. I lived in the western part of Texas, where there were a great many snakes. In July, 1908, a boy, sixteen years of age, was bitten by a large rattlesnake. He was brought to my office from a distance of seven miles. They had no stimulant to give this boy. They corded above the elbow. The boy was bitten on the wrist. It was swollen very badly when they got to my office, about an hour after he had been bitten.

I gave the boy, as soon as I could prepare it, 1-60 grain of strychnine sulphate. Then I sponged the boy's whole arm with a bichloride solution. I removed the bandages and as early as possible dressed the wound with echinacea and gave the boy 6 drops every three hours. I kept the dressing moistened every three hours with echinacea, and continued the treatment until the patient was well.

I was called to see a girl in August, 1909, bitten on the foot by a small rattler. She was ten miles from where I lived, so I drove to see her, in my buggy. I suppose I was an hour driving this distance. When I arrived at the gate I was met by her father who said to me, "Doctor, hurry, my daughter has been bitten by a rattlesnake and I fear she will die."

Of course she was very sick and vomiting. They had her leg corded very tightly. I soon gave my stimulant as before, strychnine sulphate, only I increased the dose to 1-40 instead of 1-60 grain hypodermatically. I did not have any alcohol to give her. I loosened the cord about the leg and dressed her foot as before. She got well, as all other such cases have in my practice, but soon after she was attacked by typhoid fever and it carried her across the dark river.

Third case, only in August, 1910. A boy about fifteen years of age, was brought to me bitten by a cottonmouth moccasin. They tell me this is a very poisonous snake. He was bitten on the left hand, which was swollen very badly when they brought him to me. He had his arm corded very tightly. As there were several others with him, some of them had a bottle of "snake-bite," as luck would have it. They began to pour it down the boy. They gave him about eight ounces of this "medicine." When they got to my office he was decidedly under the influence of the alcoholic stimulant. Shortly after he had taken the whisky he began vomiting. His arm was badly swollen. I gave him a hypodermic of strychnine, 1-40 grain, as in the other cases, then I loosened the cord and gave him echinacea. I dressed the wound just as before, and the patient got along fine.

I have never had any sloughing from any case. I consider echinacea a specific for snake bites, just as quinine is for malaria.

I use aromatic spirit of ammonia for bee stings. I like CLINICAL MEDICINE fine. I can endorse Dr. W. A. Bates' treatment for heat fever.

E. B. ELLIS.

Barry, Tex.

ANOTHER "SNAKE" REMEDY

I have just read "Snake Bite—Echinacea," on page 902 of the August CLINIC. For ages the Indians of California have used a weed for rattlesnake bites. It goes by the name of rattlesnake weed. I know no other name for it. On going through a patch of it your clothing will be covered with the burs. On taking a dose of it internally there is a "thrill" that goes all over you—a little similar to that from liquor. The Indians, and also the whites, consider it a great medicine. I suppose any wholesale druggist could get it.

F. POLLARD.

Fresno, Calif.

[Who knows anything about "rattlesnake weed"?—ED.]

SNAKE BITE—ECHINACEA

Dr. Moyers' article, page 902, August number of CLINICAL MEDICINE, leads me to report a case of snake bite.

Virgie D., white, seven years old, was bitten on the front of the right foot, above the instep, by a copperhead snake, about 7:30 p. m., July 20. I was called about an hour later and saw the child about 9 p. m. The marks were very distinct. A tight ligature had been placed around the ankle and a dose of whisky administered.

The foot was dark and swollen, pulse rapid and small, and she was nauseated, presumably from the whisky.

I gave her 10 drops of echafolta (Lloyd's specific tincture of echinacea), at once, and injected a strong solution of permanganate of potassium deep into the foot, about half an inch on each side of the fang marks. I then removed the ligature and applied to the wound, or rather to the fang marks, a compress wet with the permanganate solution. The echafolta was given every hour for twenty-four hours, and then every three hours for two days more. The constitutional symptoms were mild, but the leg was swollen, sore and painful for three or four days. Her recovery was complete. There was no doubt about the snake being a copperhead, as I saw it myself.

Whether the echafolta or permanganate was responsible for the favorable conditions, your readers may draw their own conclusions.

WM. B. GAMBRILL.

Ellicott City, Md.

SUGGESTIONS ABOUT INFANTS

We all have had, and continue to have, our troubles when the new baby comes. The following suggestions are all simple but may nevertheless aid somebody, somewhere.

1. The newborn child need not nurse until the third or fourth day. He may be placed to the breast and allowed to nurse if he will, but many of them won't. In the meantime, give him a little sweetened warm water occasionally throughout the day.

2. To assist in training the child to nurse, after the third day have the mother clean her hands thoroughly and then press a little milk out of the breasts and rub it over the nipple.

3. After nursing have the mother dust her nipples with bismuth subnitrate.

4. If the milk seems slow in coming and of a poor quality, advise beer or malt extract with meals. [I don't like the beer idea.—ED.]

5. Don't give the baby paregoric to quiet it, although you will feel like doing so. Use castor oil, infant's anodyne (Waugh's), or catnip tea—an old-woman's remedy. And another thing: the baby does not have colic every time he cries. Always inspect the foreskin in a boy baby, and if it is too tight and has a pinhole opening, snip the skin and mucous membrane on the dorsum of the penis back to the edge of the glans, insert one fine stitch at end of cut and keep it clean.

6. Also watch the child's breasts, whether male or female. Recently I cured a case of "three months' colic" by using spt. camphor and hot applications on the breasts of a male child. The glands had secreted a milky

substance which had caked and inflamed the breasts until every time they were touched the babe screamed with pain.

7. In hot weather, see that the child does not have more than twelve layers of flannel binders and skirts swathed about him, and advise bathing once daily in warm, soft soda water instead of perfumed-soap water.

8. Don't believe in three months' colic. It's like postum—"there's a reason."

9. Dust the cord with salicylic acid, one part, starch four parts, and it will come off sooner. But don't worry if it stays on a week or eight days—if it is aseptic.

10. Persistent bleeding from the navel usually means hereditary syphilis and usually is fatal. I have tried the following drugs and measures on the cord: Adrenalin, ergot, collodion, caustic, cautery, suturing and firm pressure, and failed, and then stopped it by pouring warm, melted gelatin over the whole stump.

11. Listen to what the old women tell you. Sometimes they will say something worth while—usually not.

12. Don't permit anyone to kiss the baby on the mouth—and use lots of common sense and castor oil.

The following prescription is often very useful in acute bronchitis in children two months of age and over: Sol. pot. citratis, oz. 1; ess. limonis, drs. 3; syrupi scillæ, drs. 4; syr. acidi citrici, ozs. 2; aquæ, q. s., ad. ozs. 4. M. Sig. One-half to one teaspoonful every two hours in a little water.

C. A. Ballard.

Logansport, Ind.

A DOCTOR'S DAUGHTER IN NEED

We have just received a pitiful letter from the daughter of the late Dr. M. R. Latimer of Orme, Maryland. The Doctor died without means and recently the Doctor's wife passed away, leaving his daughter entirely without means of support. Now, unfortunately, she has been attacked by a cancerous disease of the scalp, rendering it necessary that she should have immediate treatment. She desires to enter a hospital having special facilities for the treatment of these cases, but lacks even the money to pay her railroad fare to New York where she wishes to go. She has appealed to us.

Among us, Dr. Abbott and his staff, we have already contributed something to help the dear lady in this time of need. It has occurred to us that there must be among the readers of Clinical Medicine hundreds who would be only too glad to help a little. Contributions of small amounts, twenty-five cents to one dollar each, if sent to us will be forwarded to Miss Latimer. They may be the means of saving her life—at the very least, they will contribute to the comfort of one who was dear to one of the "family." Send in your contributions and we shall see that they reach Miss Latimer.

A MIRACLE—"CASTING OUT DEVILS"

A German woman, married, age 52, mother of seven or eight children, had been confined to bed twenty-eight weeks when first seen by the writer. There was a history of repeated attacks of fever. When seen by the writer the temperature was 99° F. There was a dark, heavily coated tongue, with red edges; the bowels were tympanitic and only moved after using an enema, which had been depended upon for this purpose for the preceding six months. Pulse 105, weak. Numbness and coldness in the left leg and arm.

Two other physicians who had abandoned the case pronounced it a slight stroke of paralysis. There was no appetite, and the woman was unable to retain anything upon the stomach except occasionally crackers softened in water. Sweating was profuse; but all the doors and windows were closed tightly; a fire was in the stove and heavy blankets on the bed, even on the warmest days. The patient was highly neurasthenic and the symptoms related by her would fill a book.

Diagnosis: Chronic malaria.

After ten days' treatment, using hepatics, cactin and the triple arsenates with nuclein; buttermilk and liquid peptonoids for nourishment; massage to bowels and along the spinal column each day, the tongue cleaned off

nicely and the other symptoms disappeared. There was no fever; the appetite rapidly returned, patient was hungry and clamored for something solid to eat.

The next day I found her with fever, tongue coated, no desire to eat, feeling much worse. She had eaten potatoes and fish.

I repeated my former treatment, followed up closely day after day for about two weeks. Finally the tongue began to clean off, but

Dr. W. W. Cox and wife of Harrold, Texas

the patient was slow in gaining strength. Heart had slowed down to 90, but the temperature persisted, ranging from 99° to 99.5° F. Pain all gone, but not much improvement.

Finally the family and neighbors became discouraged, lost hope of recovery, and suggested that "there is something back of it all which we cannot explain."

I said, "Do you mean something preying upon her mind?"

"Yes," said they, "something we cannot explain."

Being Mennonites in religious belief, I suspected the family and neighbors thought her possessed of devils or evil spirits. I now began to learn of hysteroepileptic seizures which she had had before I began treating her, during which seizures she would jerk all over, choke and scream.

Finally the heart began to fail: there was pronounced tachycardia and sinking spells; she was better one day, worse the next. Finally it looked as though the patient's end was approaching, and I so informed the family.

A sinking spell came on and she refused to take the medicine. I found her in collapse and persuaded her to take sufficient to revive her and reduce the pulse from 130 to 100 beats. The minister and neighbors gathered in to witness the passing over.

I left instructions to give three 1-67 grain cactin and two 1-67 grain strychnine arsenate granules every four hours, saying she might not live through the night, and yet she might rally, I could not tell; but that if she was able and willing to take the medicine the following day to let me know and I would return.

They did not let me hear from her, however. On the second or third day after my final visit I learned they had expected her to die at any time, that she had refused to take the medicine that I had left, but was still taking the liquid peptonoids and milk.

The next time I heard from her was about four or five days after my last visit. I learned that she was up and had been visiting the neighbors. I interviewed one of the neighbors and he gave me the details of the miraculous recovery and the casting out of the "evil spirit," as follows:

The minister and neighbors prayed, "with laying on of hands." After the prayer she gave one scream and said, "I feel better." They told her to get up and walk. She got up and walked across the room, which, however, she was able to do two weeks before, and the next day she was placed in a vehicle and taken visiting.

Imagine my surprise after laboring diligently with this case, hoping to make a reputation, and after hopelessly abandoning it, to learn that the "evil spirit" was driven away by prayer and the laying on of hands, while your humble servant received no credit whatever.

I have learned this lesson: Hereafter in such cases I will never give up nor leave a patient until the last breath is drawn; and if necessary, I will do a little "laying on of hands" and "casting out of devils" myself. Had I staid with the patient until the crisis came and passed, until the fever was ended, I might possibly have received the credit.

The outcome convinces me of the correctness of my diagnosis. I tried to explain that fever ended and the turn came just in time, but to no avail. The reply was: "We should not take too much honor from the Lord."

W. W. Cox.

Harrold, Tex.

CALOMEL AS A GERMICIDE IN DIPHTHERIA

Several years ago Dr. DeWitt contributed a very modest article to *American Medicine* on the treatment of diphtheria. Briefly, his treatment consists in minute doses of calomel together with tincture of iron chloride.

Dr. DeWitt was practising in a suburb of Trenton, N. J. Dipthheria is endemic among the foreign population of Trenton, and breaks into frequent epidemics which overrun more or less of the surrounding territory. An epidemic of diphtheria has long ceased to be "news" in this part of the state. In his thirty years of practice here, the doctor has not lost a single case of diphtheria where the patient got the medicine. I think that is a record that should command the attention of the profession.

A remarkable thing is that, no matter how severe the infection, the patient is convalescent within forty-eight hours from the time of commencing treatment. Cultures made for the doctor, from scrapings from the throats of some of his patients, by a Trenton pathologist, have been found free from Klebs-Loeffler bacilli after as little as six hours of treatment. (A milligram of calomel is given every fifteen minutes).

This is significant of the mode of action of the remedies employed. The calomel is germicidal rather than antitoxic. This is borne out by the fact that, while patients cured by antitoxin have been known to transmit the disease to other members of their families, after their return home from hospital, this has never happened after treatment with the above remedies. This is the more remarkable in that Dr. DeWitt uses no throat spray of any kind nor antitoxin, considering that they add nothing of value to his treatment.

The doctor believes that the active element in his tretament is chlorine, and that the two medicines he uses are the best means of introducing this element into the system. After a study of some of the doctor's cases, it seemed probable to me that the active element was not chlorine, but mercury, and, in short, I succeeded in duplicating his results with calomel alone.

If calomel is pushed to a laxative effect, its germicidal action is lost. Dr. DeWitt and I have both found this to be invariably the case. I found that, without the astringent iron chloride, milligram (1-67 grain) doses of calomel always became cathartic sooner or later, and permitted a relapse. So I gradually reduced the dose till I reached 1-200 grain. This I found I could use freely without any cathartic effect. The germicida effect seemed to be just as strong with thel reduced dose. I have also had good results from the homeopathic mercurius dulc., 3x (gr. 1-1000), but this is comparatively slow and feeble and I prefer to use 1-200 grain. The smaller dose should be given every five minutes, the larger usually every fifteen, to effect.

Dr. DeWitt has found his diphtheria treatment equally effective in membranous croup, scarlatina and erysipelas. In all these it is prophylactic in smaller or less frequent dosage. I have found calomel, gr. 1-200, abortive, curative and prophylactic in Philippine dengue. This disease is of a milder type in the Philippines than elsewhere. Dr. DeWitt tried his treatment in one case of measles, very late in the course of the disease, found it of no value and did not try it again. I tried calomel, gr. 1-200, in one case of measles when the rash was just coming out, and the case recovered so quickly as to throw doubt on the diagnosis. I can only say that there was an epidemic of measles

at the time, and my patient had all the prodromal symptoms.

In all these diseases the patient is convalescent within forty-eight hours after beginning treatment. This time element seems so characteristic of the germicidal action of calomel, that if a patient should show no improvement under it for twenty-four hours, I should abandon the drug and revise my diagnosis.

We have tried calomel, and found it wanting, in pertussis and other infectious diseases. However, it may yet find a place as a germicide in such diseases as pertussis and meningitis, in combination with antispasmodics and other antitoxic drugs.

Such are the clinical facts. How does it work? To my mind, it is unthinkable that such small doses could convert the blood into an antiseptic solution, in the laboratory sense. It will not do it *in vitro*, and it will not do it in life, if given in physiologic doses. Possibly it acts as an opsonin or opsoninogen for an as yet undefined class of bacteria.

Finally, I hope nothing in the above will be construed into an attack on the clean-out principle, which I thoroughly believe in and practise, nor on the use of calomel for clean-out purposes, which I also practise. But I think the attention of the profession should be called to the fact that calomel is a highly valuable cleaner up, in some cases, as well as a cleaner out.

CHARLES F. MORRISON.

Klamath Agency, Oreg.

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[In acknowledging the receipt of Dr. Morrison's article, we suggested to him the danger of advising calomel as in any sense a substitute for the antitoxin treatment of diphtheria. The value of the latter, its specific action upon the disease, has passed out of the realm of the speculative and is now accepted as settled by practically the entire medical world. Once the diagnosis of diphtheria is made, it is plainly the duty of the physician to give antitoxin. This, of course, does not mean that he should not give anything else, and it seems to us just as plainly a duty to use any other remedy that may seem indicated, such for instance as calcium sulphide, calx iodata, or possibly the small doses of calomel advised by Dr. DeWitt. But in replying to our letter, Dr. Morrison wrote the following extremely interesting letter:

"My article on 'Calomel as a Germicide' is largely a review of Dr. DeWitt's work, but I do not wish to be understood as endorsing his views *in toto*. *I* do not 'advise calomel to replace diphtheria antitoxin,' as I do not consider it has any antitoxic properties whatever. It is merely a germicide. I should think the ideal treatment of diphtheria would combine a systemic germicide (calomel), an antitoxin, and a local antiseptic and solvent. Diphtheria is essentially an intoxication and cannot be cured except by antidoting or eliminating the toxin. Calomel cures by (indirectly) stopping the generation of toxin and giving the system a chance to get rid of what is already there.

"You will note that while the bacilli disappeared from Dr. DeWitt's cases in six hours, clinical convalescence took place in forty-eight hours. Thus it took unaided nature forty-two hours to overcome the toxin present after all new toxin formation had been stopped. It logically follows that

"1. The usual initial dose of antitoxin would have greatly shortened the disease.

"2. Much less antitoxin will be needed when calomel is given in germicidal doses. Possibly the initial dose will be enough.

"3. The exhibition of suitable eliminants, in addition to the above, should shorten the course of the disease still more.

"I have not tried it, as my cases have been few, and I wanted to give the calomel a thorough test.

"While I am on this subject, I will add that, in my experience, the best heart sustainer and vital incitant is the cold wet-pack. I have cured diphtheria with this alone, and without medication of any kind. I did not say all this in my former letter, because that was on calomel and not on diphtheria.

"Our armamentarium has been increased by such valuable agents that diphtheria should now be cured more quickly and easier than a common cold. We have:

"1. Calomel, the germicide.

"2. Antitoxin, and lobelin, the vegetable antitoxin.

"3. Veratrine and other eliminants.

"4. The cold wet-pack vital incitant.

"A curative local treatment has not yet been found.

"Of the above, No. 3 is subsidiary. The other three or four are each curative alone and unaided in the great majority of cases. The first failure of calomel has yet to be reported. If these three treatments were combined they would still act independently, attacking the disease from different sides, and should make short work of it."

We are glad that we have been able to draw out Dr. Morrison further. While his article was confined to a discussion of calomel in the treatment of diphtheria, as he says, it is impossible to avoid reference to other drugs and other methods without creating misunderstandings. It would be a misfortune for any reader to get the impression that he could safely give up the use of diphtheria antitoxin, and that he could get equally good results from the use of mercury alone. We do not believe this to be true—and yet we *do* believe that the calomel treatment is good and worthy of use in association with antitoxin.

The use of mercury for its systemic effect in diphtheria is not new. Our older readers who are familiar with the magazine literature of thirty to fifty years ago will remember the numerous articles appearing at that time upon the application of corrosive sublimate and calomel. They were given in large doses and small, and the reports, though variable, were generally good; yet the remedy certainly never attained the dignity of a specific. Nevertheless, it was and is an effective remedy, possibly one of the best that we have, and in calling it again to our attention Dr. Morrison is doing us all a service.

I can not close this note without again calling attention to the value of calx sulphurata. So much has been said about it in these pages that no "argument" is necessary. Frankly, it is a favorite of ours. We have proven its value in many a hard-fought battle with disease. It is an exceedingly efficient remedy in diphtheria and in practically all of the contagious diseases—and it is absolutely harmless.—ED.]

CALCIUM SULPHIDE AS AN IMMUNIZING AGENT AGAINST SCARLATINA

On April 18, 1910, I was called to attend Neville L., age eleven years, ill with scarlatina. The family consisted of the mother (who had a history of a previous attack), the sick boy and a younger boy of eight, named Robert. Neville had a typical but not severe attack of scarlet-fever and recovered, with no complications.

The house consisted of only two rooms, and as Robert had already been thoroughly exposed and could not be further isolated, I determined to try the effect of calcium sulphide as an immunizing agent upon him. Accordingly, I gave him two 1-6 grain granules every two hours for the five weeks that he was in quarantine. He also used a gargle of salicylate of sodium, five grains to the ounce of water, four to six times daily, until Neville's convalescence.

Either the use of these precautions or the possession of natural immunity prevented Robert from acquiring the disease from his brother, but if it was natural immunity it was rather short-lived, as on August 18 I was called to see him and found him, after a sleepless night, with a history of a severe congestive chill late in the previous afternoon followed by an access of fever, vomiting and sore throat. He was thickly broken out with the typical scarlatinal rash. He was promptly placed on the treatment which had been accorded to his brother, as follows: Calomel, 1-4 grain, podophyllin, 1-8 grain, six doses of each; one dose to be taken every half-hour until the granules were gone and to be followed by an effervescent saline laxative, which last was repeated every morning until convalescence.

He was given the solution of sodium salicylate, 5 grains to the ounce as a gargle, and was bathed with a solution of epsom salt, one ounce to a pint of water, with 20 drops of tricresol added. These baths were to be repeated every four hours. He was

also given the defervescent compound of aconitine, digitalin and veratrine, until temperature fell to normal and remained so.

This was on the morning of the 20th. By the morning of the 21st the eruption had faded, his throat was clear, though still red, and he was convalescent. Today (August 24) he is eating light food, sleeping well, temperature normal since the 21st, and his throat is well, though desquamation has not yet commenced. Barring possible complications to him, he will do well. But the point a tissue is, did the use of the calcium sulphide last April confer immunity upon him for that time of exposure? To my mind it did and I shall certainly try this method again if occasion arise.

Wm. C. Post.

Maquoketa, Ia.

COLON-TUBE AND COLON FLUSHING

In the August number of Clinical Medicine, page 884, the question as to whether it is possible to carry the colon-tube beyond the sigmoid flexure is discussed.

It is now some fifteen years since I treated a patient, age seventy-seven years, who was suffering from some obstruction of the ileo-cecal valve, which I diagnosed as a cancerous tumor of the pelvis. During the six months prior to her death obstruction frequently became so complete that the patient would vomit fecal matter. To overcome this I resorted to a method which I had once or twice employed in somewhat similar cases. This consisted in securing a good soft-rubber rectal tube *one yard* long. This I easily introduced, *its full length*, thus landing the furthermost extremity at or near the seat of the obstruction. With a syringe I then pumped into the tube, and thus into the bowel, a pint of ordinary kerosene. This was resorted to every time obstruction occurred, probably ten or a dozen times, and always with complete success. The bowels would move and quick relief came.

The files of this journal will show that I reported this case ten years or more ago when the question as to the safety of the injection of coal-oil into the bowel was being discussed. I will say that I have used injections of coal-oil into the bowels in quantities of a pint or more, in three or four cases, with beneficial results and without harm to the patient. While inserting the tube into the bowel I kept it well filled with warm water by use of a fountain syringe. This stiffened the tube and made way for its passage, by injecting water into the bowel.

V. E. Lawrence.

Ottawa, Kan.

[Senn doubted the possibility of inserting a tube beyond the sigmoid flexure; but I am confident I have done this many times by employing the technic described by Lawrence. I have yet to hear of any harm resulting from the enemas of kerosene oil.—Ed.]

ANOTHER CASE OF PRECOCIOUS MOTHERHOOD

As early puberty and young motherhood have aroused interest among the profession on account of the most extraordinary case in Chicago, I will state that on July 31, 1910, at 2 o'clock a. m. I was summoned by 'phone to go about eight miles east of this place to a farm on Line Creek to attend Mary Brown, colored, daughter of Jonas Brown, in confinement. She was delivered uneventfully, ere I reached her, of a six-pound baby girl, and apparently was resting well.

Inquiry elicited the following: Age twelve and one-half years; weight 104 pounds, complexion very dark-colored; health always good; had menstruated four times, the first on June 8, 1910. She went the full term of gestation. Her father's age is 31 years; mother died during the month of June, 1910, of tuberculosis, at the age of 32 years. The baby was a fully developed child. Duration of labor only about two hours.

A. J. Mann.

Alvaton, Ga.

PURPURA SIMPLEX

A case of purpura simplex lately occurred here in the person of a fair-haired scrofulous

young woman and I send you herewith a photograph which I took of the maculation or exanthem. The noteworthy feature of the case is the repeated relapses which she has suffered. They came at first about twice a week, later at longer intervals. Each outbreak lasts about thirty to thirty-six hours. Will xanthoxylin or berberine do such a case any good? EDWARD GRAY.

Eldridge, Calif.

[Possibly berberine might be of value, through its action upon the connective-tissue elements of the weakened blood-vessels, though I believe hydrastine would be more clearly indicated. I should be inclined to give atropine, my favorite remedy for hemorrhage (such a case is really one of bleeding into the skin) and the calcium salts to correct the hemorrhagic tendency. What say the "family"?—ED.]

Case of purpura simplex, reported by Dr. Edward Gray

GOOD WORDS FOR THE CLINIC

I have read THE CLINIC from its babyhood and have always felt I could not do without it and practise medicine. It is of more benefit to me than any other journal I take.

After twenty-six years of practice in country and town I have given up the work to younger and more active men than myself. But I never fail to "boost" the old CLINIC and tell the boys they would better learn medicine while they are young, lead rather than follow. The time is coming when they will have to fall in or fall out. The day of "five cents' worth of this and ten cents' worth of that in a cup of water and take a mouthful several times a day" is gone by. Exactness and known quantities and strength are required.

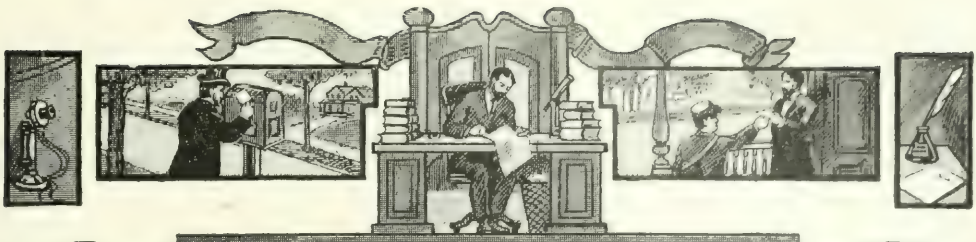
Long live THE AMERICAN JOURNAL OF CLINICAL MEDICINE and its influence for good. If it never taught anything but how to save the lives of the little ones it would have been worth millions.

J. D. EDMUNDSON.

Oakland, Cal.

TYPHOID INTESTINAL PERFORATION

M. Ducourtrial related, to the Societé de Médicine Militaire Francaise, at their session in October, 1909, the following case: The patient, who had an intestinal perforation from typhoid, had been operated upon by him six hours after the first symptoms of perforation. After the laparotomy, the perforation, which was in the neighborhood of the ileocecal valve, was sutured, drainage being performed without washing. The patient was then placed in the semi-sitting position, which is preferred by American surgeons, and was cured.—*Gaz. des Hôpitaux*, 1909, p. 1589.



CLINICAL MEDICINE
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PART III.—LESSON THIRTEEN

DYSENTERY

THE ETIOLOGY AND DIAGNOSIS OF DYSENTERY

Dysentery is a purely clinical term, being applied to a somewhat characteristic symptom-complex consisting of intestinal pain and accompanied by frequent hemorrhagic mucous discharges from the bowels. Several varieties of dysentery are at present distinguished, according to their respective causes; they divide themselves, however, into two general classes, viz.: bacterial and amebic.

1. Acute Epidemic Dysentery, the bacterial form, is most commonly found in temperate and subtropical climates.

Shiga, of Japan, isolated an organism which he found to be the cause of an epidemic of this disease in his country. This organism, the *Shiga bacillus*, belongs to the typhoid and colon group of bacteria, very closely related organisms, showing, in fact, only very slight cultural differences and causing the same variety of symptoms. They have also been described by Flexner, who found them during an epidemic of dysentery at Manilla; by Parke, who found them during an epidemic of dysentery in the East; and also by Bassett. Duval and Bassett (*American Medicine*, 1902, Vol. 4, page 417) found the Shiga or closely allied dysentery bacilli in forty-two out of fifty-three cases of summer diarrhea in infants.

A careful review of the bacteriological literature shows that most cases of summer diarrhea of infants, characterized by the appearance of mucus in the stools, are caused by this class of bacilli.

All forms of dysentery belong to the classes of diseases known as filth diseases and can practically all be prevented by proper sanitary measures.

In the bacillary form of dysentery we have a characteristic inflammation, sometimes ulceration or lesions of a diphtheritic nature (ulcerative colitis) of the intestinal mucous membrane. Other than this there are no characteristic anatomical lesions.

The bacilli are found in enormous numbers in the feces and also, as a rule, in the mesenteric glands. Unlike in typhoid fever, the bacilli are not present in the skin, the blood or the urine. The infection resembles that of Asiatic cholera very much. The bacilli are spread by flies, by contact, by water, raw vegetables and by milk.

2. Amebic Dysentery, the other form, is more common in the tropics. It was first observed by Lambal, in 1869, that the stools of sufferers from this disease contained ameba.

The amebic variety of dysentery is exceedingly common in Egypt, India, China and the Philippine Islands. It is also occasionally encountered in South America and the Southern States of our own country. Although it is a decidedly chronic disease, many times lasting for years, the majority of the attacks occur after the heavy rains of the early summer months.

The Cause of this Disease is the entamœba histolytica, and these organisms are found in the intestine, especially in the ulcerated patches, but also in the abdominal cavity and in the liver abscesses, if formed, which is the case in from 20 to 25 percent of all attacks. This organism is pathogenic for cats, dogs, and monkeys, the latter sometimes acquiring the disease in a natural way.

The *stools* in this condition are always thin and watery, and though often foul-smelling usually possess a lime-like odor. They contain much mucus, blood and pus, numerous pieces of necrotic tissue and are always alkaline in reaction.

The histolytic amebas are very easily destroyed in the feces by a saturated solution of boric acid and 1 : 300 solution of quinine sulphate, which kills in ten minutes; also by hydrogen peroxide and potassium permanganate.

The infection is spread by drinking water and raw foods, many of these parasites being found upon the green vegetables, especially those fertilized with human excretion.

Unfortunately, sand filtration, which is so effective in the prevention of typhoid fever, and of bacillary dysentery, is of no avail here, since the amebas pass through even the best sand filters. In an infected district the only possible safeguard is to boil the water or to treat it chemically, to destroy the organisms.

Diagnosis is usually made by an examination of a perfectly fresh stool, by means of a hanging drop, usually examining under low magnification. Thus we find in the bloody mucous or necrotic tissues highly refractile motile bodies, ovoid or irregular in shape, the cells being granular, especially the inner portion, or endosarc, which contains a nucleus and foreign substances, such as red and white blood-corpuscles, pigment, food particles, bacteria, etc. There is also a clear and very highly characteristic ectosarc, which is best shown in the false feet, or pseudopodia. Usually there are present from two to four vacuoles which may be seen to pulsate. The organism reproduces by fission and budding.

Unless the feces be examined immediately after evacuation the organism will be found in an ovoid resting stage, in which little or no motility is evident, and they then resemble epithelioid cells, although errors in diagnosis most commonly are due to mistaking the epithelioid cells for amebæ. They stain well with methylene-blue or with dilute fuchsin solution.

During certain periods in the course of the disease the patient may exhibit either normal bowel movements or, quite often, constipation, but after a brisk cathartic the amebæ may be found in the resultant stool.

In tropical countries dysentery is probably the most fatal of the prevalent diseases, and among the United States troops in the Philippines it is the principal cause of death. During our own Civil War over 50 percent more deaths were due to dysentery and diarrhea than to the casualties and from wounds. The death-rate among the United States soldiers in the Philippines is 2.02 per 1000.

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MANAGEMENT OF DYSENTERY

Experience has confirmed what reason teaches, that one kind of treatment does not answer in all forms of dysentery, nor will one drug suit all stages of the disease. Undoubtedly *more than one morbid state is included* under the name of dysentery, and the treatment adapted to one form may not be useful in another. The physician, therefore, should not allow any prejudice to prevent him from having resort to remedies which have been found life-saving in certain forms of the malady.

Hygienic and Dietetic Regimen Paramount.—The chief point, however, in all

forms of dysentery alike is the hygienic and dietetic treatment, and many of the milder cases yield to this alone.

Rest, in this disease, is an important curative agent. The patient should be put to bed at once. The room, for obvious reasons, should be well aired and protected from draught. Great attention should be paid to individual hygiene, and I might add, in cases of epidemic, to public hygiene as well; and it is during epidemics that the disinfection and proper disposal of the excreta and the securing of pure drinking water must receive the closest attention. All drinking water should be absolutely pure, preferably filtered and boiled, even if the source from which it is derived is above suspicion.

The patient should be kept in bed and his strength be husbanded from the beginning. The bedpan should be insisted upon, and after each evacuation the anal region should be washed with an antiseptic solution and then carbolized vaseline applied. Except in very warm weather, a thin woolen covering is useful in preventing chilling of the surface.

Heat a Valuable Agent.—Hot fomentations to the abdomen may give the patient a feeling of comfort and aid in relieving pain. Care must be taken in the act of changing the fomentations, that the patient be not exposed to cold and the bed clothes are protected from dampness. If there be considerable gastric irritation, a sinapism or a spice poultice may be placed over the abdomen. Sometimes, especially in tropical countries, where the patient is suffering from fever and drenched in perspiration, the fomentations seem to add to his suffering; in such cases they may be withheld. A warm bath given with due precautions at the very beginning of the disease often is useful.

In Selecting a Plan of Treatment, it must be remembered that an extensive surface of the intestines is involved; that the inflammation is intense and rapidly progressing, with a tendency to necrosis and putrefaction of the necrosed tissue in the intestinal canal; that the patient is soon exhausted if the inflammation does not abate; and that there is great risk of the absorption of toxins. Underlying all these conditions in a certain proportion of cases is the undoubted presence in the intestines of the amœba coli as a cause, and the probable presence of other microorganisms as causative agents in all other cases.

The Diet.—A very important point in this disease, in which the food-canal itself is so seriously affected, is the diet.

Milk.—In most instances the patient should be restricted to a milk diet, pure and simple, and it is very essential that the milk be absolutely pure. Condensed milk will answer if perfectly pure fresh milk cannot be obtained. Milk diet is as advantageous in the chronic as in the acute stage and is especially valuable when there is a scorbutic tendency. The milk may be given pure or diluted with lime water and is to be administered in the intervals between the doses of medicine. For the first few days, unless the patient be in a low state, he should not be urged to take nourishment oftener or more largely than he desires, while in all cases the needs and feelings of the individual should receive due consideration. When pure milk is not well supported, it should be given with full doses of pepsin, or peptonized milk may be substituted.

It must be remembered that in this disease perfect digestion and absorption are difficult. Whatever food is given should be given in small qnantities at short intervals and of a kind that has the least waste.

Milk, if given in large quantities, is one of the most objectionable of all foods, as imperfect digestion and fermentative decomposition follow its use. The presence of masses of casein in the stools is, to a certain extent, a guide to the advisability of discontinuing milk, or for diluting the same with lime water, barley water, rice water or vichy water. The withdrawal of milk altogether and the giving of beef juice, beef tea or broths is sometimes followed by relief of the abdominal distress and by a change in the character of the stools. Whey may be given as a drink if the patient is thirsty. When prostration is great—not otherwise—a little wine or brandy may be beneficial.

As regards the quantity of food, not more than from two to four ounces of liquid

food should be given at intervals of two or three hours. In the earlier stage, with the hope of moderating the severity of the attack, a minimum quantity should be given. Later on, if the pulse is feeble and the patient exhausted, the quantity may be increased; but it must be remembered that the asthenic symptoms are not due to want of food, but to inflammation and toxemia. Strength is lessened and not increased by loading the intestines with decomposing food.

Medical Treatment.—For many years ipecacuanha has held a high place in the estimation of clinicians in the treatment of dysentery. This drug still retains its place in the books and in the practice of numerous physicians, although it is fair to say that the average American practician does not prescribe ipecac as much as the European doctor.

Uses of Ipecac.—Personally, my experience justifies me in agreeing with Davidson, that in most uncomplicated cases of *tropical dysentery* the ipecacuanha treatment should be adopted, and I believe that this treatment is also the *best for the catarrhal stage of* dysentery *in temperate climates*. It seldom fails if given from the onset of the malady.

Davidson says that when the disease has been preceded by constipation, a preliminary dose of calomel and saline laxatives should be given to carry off fecal accumulations. If, on the other hand, there is no reason to suspect such retention, 20 to 30 grains of ipecacuanha powder, made into a bolus, should be given at once, and the dose repeated every six, eight or twelve hours, according to the urgency of the symptoms and the tolerance of the remedy, until a feculent motion is obtained.

If the first dose causes vomiting, this will do good rather than harm, but the second dose should be preceded by a sinapism placed over the pit of the stomach and 20 to 30 drops of tincture of opium for an adult patient should be given half an hour before the second dose and no liquid allowed for two hours before the bolus is administered. With these precautions, the second dose is seldom ejected.

It is better, as a rule, to rely upon the ipecacuanha alone; still, in some instances, when the tormina are very distressing and the calls to stool excessively frequent, from 10 to 15 minims of laudanum may be advantageously added to each bolus. The intervals between the doses should be sedulously utilized for the administration of nourishment. The first sign of improvement is the passage of a feculent stool, after which the tormina and tenesmus decrease.

Additional Medication.—The treatment as directed should be maintained for some time after signs of amendment have appeared, but when the disease has assumed the character of a *simple diarrhea*, bismuth salicylate, alone or combined with Dover's powder, usually proves sufficient to check the looseness, if careful attention to diet be continued.

When there is much *dysuria*, a hypodermic injection of morphine may be resorted to. However, in this complication a warm bath often acts beneficially and if not otherwise contraindicated should be tried.

The treatment by large doses of ipecacuanha has proved so successful that it should not on light grounds be set aside in favor of any other. If for any reason this drug should be inadmissible, the saline treatment, so much and so successfully used in France, may be resorted to.

Importance of Laxative Salines.—Sodium sulphate (or any other good saline laxative—I myself giving preference to Abbott's effervescent salt) is the salt generally employed and is given in solution in doses of an ounce to an ounce and a quarter first thing in the morning. Its purgative action commences from one to four hours after ingestion and commonly ceases in ten or twelve hours. The dose should then be repeated, unless the urgent need for rest requires delay. It was remarked by Trousseau that the cure is the more certain the greater the number of evacuations. Still, there is no use in urging purgation beyond a reasonable limit, and half an ounce of the salt four times daily generally will suffice in mild cases.

The Antiseptic Regimen.—The constant presence in the stools of organisms that undoubtedly exercise a destructive influence upon the tissues of the intestines and by means

of the poisonous material they generate frequently cause disease of the liver and occasionally of the kidneys suggests to us a resort to antiseptic remedies by the mouth or the rectum in all cases of dysentery as auxiliary to the ipecacuanha treatment.

Experience, so far as it goes, is in favor of attempting to produce antisepsis of the intestinal canal by the administration of antiseptic remedies by the mouth, and as these need not interfere with the treatment either with ipecac or salines, there is no reason why so hopeful a method should not be tried. The *sulphocarbolates* are the remedies to be preferred whenever there is a suspicion of liver or kidney complication. Ipecac and the laxative salines act as intestinal evacuants. They clear out, or wash out so to speak, the intestinal canal, helping to remove at the same time the microbes and toxins which may be present.

However, when the rectal extremity of the bowel is the sole or chief seat of the disease, the employment of enemas, especially mild, nonirritating antiseptic injections, responds to the indications.

Some Objections to Enemas.—In *fecal dysentery*, on the other hand, we cannot carry out disinfection by enemas with safety. In fact enemas are not as useful in practice as one might suppose. When the disease has reached the stage of suppuration, ulceration or gangrene, when antiseptics are mostly required, the bowel is so disorganized and pliable that the use of large enemas is not devoid of danger, while small ones fail to cover the entire diseased area. Frequently also the anus and rectum are intolerant of the introduction of the clyster-pipe. It is in the earlier stage, before the integrity of the bowel has been seriously impaired, that good is to be expected from large enemas.

Enemas Have Their Uses.—The colon of an adult has a capacity of three to four pints. A large enema may be taken to mean from one and a half to two and a half pints. A large water enema often is useful at the beginning of the attack, and it may be made antiseptic in some measure by the addition of appropriate agents. If it be repeated, small doses of the antiseptic should be added at first and the increase of the active ingredients regulated by the observed effect and the susceptibility of the individual patient.

Our experience with antiseptics in dysentery, especially in the way of enemas in the various stages, is rather slight, but given both by mouth and rectum they furnish resources which may hereafter enable us not only to treat cases successfully, which otherwise resist other forms of medication, but may materially diminish the risk of hepatic complications and reduce the number of cases that become chronic.

Medicated Clysters.—Small injections of starch water and laudunum have a limited field of employment in the treatment of dysentery. But, says Johnson, they do infinite harm if used without emptying and cleansing the rectum in advance, and he adds, that they are to be condemned if administered for the purpose of curing the dysentery by preventing the emptying of the rectum.

Solution of silver nitrate, containing 1-2 to 1 grain to the fluid ounce together with from 5 to 10 drops of deodorized tincture of opium, not more than one or two ounces of this being used at the time, is recommended by Pepper, and is of service in cases in which the inflammation is confined to the lower bowel and is not of intense degree. Stronger solutions act favorably if the rectum is ulcerated, but they are better adapted to the chronic forms of the disease. Small injections of astringents or of ice-water and the insertion of small lumps of ice have also been suggested.

The object of large injections containing astringents or antiseptics is to apply treatment to the colon throughout its whole length by bringing the drugs in solution in direct contact with the inflamed surface, besides the cleansing and disinfecting of the canal. The first question is as to how this should be done.

Technic of High Injections.—If the fluid is to be thrown into the rectum or an effort is made to pass the tube through the curves of the sigmoid flexure into the colon, it is a fact that, in spite of what may have been said on this point, the efforts to pass the tube beyond the first turn of the

sigmoid will usually prove fruitless, for the tube will, as a rule, turn on itself. Even if success were more frequent, there would be the serious objection that mechanical irritation of the mucous membrane is inevitable and injury or rupture of the wall of the bowel, thinned as it is by ulceration, is possible.

However, fluid thrown into the rectum will reach the colon just the same, as Johnson says that he has had the opportunity to demonstrate the facility with which this takes place. In the case of a fecal fistula in the cecum, following the operation for appendicitis, colored fluid was forced into the rectum with a Davidson syringe and this, under gentle pressure, escaped within half a minute through the fistulous opening in the right iliac region. This was repeated so often and with such uniform results that it leaves no doubt that nothing can be gained by making the tube pass through the sigmoid into the colon.

Astringent and Antiseptic Enemas.—Alum, lead acetate, zinc sulphate and other mineral astringents have been employed in rectal injections in the proportion of half a dram or a dram to a pint of water, warm or cold. Silver nitrate is perhaps more highly spoken of than any other drug of this class and is to be used in the same strength. Tannic acid has an especial advantage in being antiseptic and astringent while free from irritating properties.

The objection to be made to all astringents used in this way is, that they can do nothing more than cause contraction of superficial vessels and can have no effect upon the parasitic element of the disease nor upon the proceeding disintegration of tissues and the decompositions that are going on in the intestinal canal. They cannot, therefore, equal the antiseptics capable of destroying the cause of the disease and of preventing intestinal putrefaction.

Solutions of any of the antiseptics should be introduced into the colon by rectal irrigation, but as they are so much more serviceable when used in the form of irrigations, they will be considered under that head. Large volumes of water should always be introduced into the colon under low pressure. The inflamed state of the walls of the bowel should be borne in mind. Overdistention cannot but do harm, while slow entrance will result in the distribution of the fluid throughout the colon without stretching the bowel.

For the purpose of irrigation a fountain-syringe or a Davidson syringe will be needed, or water may be poured into a funnel attached to a long tube. This tube should be at least from twenty-four to thirty-six inches in length and No. 27 English or No. 41 French in size, smaller tubes, of course, being used for children and in cases in which the rectum is intolerant of distention. It is very important that the orifices of the tube should be large and located on the side. Tubes with an opening only at the extremity are worse than useless here. After the water has been thrown into the bowel it is allowed to remain for a few minutes or until the patient ejects it spontaneously.

Koryton has reported sixteen cases of dysentery thus treated by irrigations with excellent results. He employed warm water, plain or carbolized, and the fluid was allowed to remain in the intestines five, ten, fifteen or even twenty minutes. Under this treatment the feces became thicker and lost their foul odor, the mucus, blood and shreds of waste tissue disappeared, the fever subsided, and the general symptoms all improved. The benefit followed immediately upon the washing of the bowel, and relapses due to suspension of the measure were relieved at once by a return to the treatment.

One Objection to this plan is that there is a certain amount of danger from overdistention of the bowel. The patient's suffering may be increased thereby and the disease aggravated. Again, the fluid injected may not be expelled or only a small part of it escape, so that there is no washing out of the bowel or a thorough disinfection of its contents.

Irrigation of the Intestines.—The difference between injection and irrigation is, that the latter aims to clear the bowel of its decomposing contents so far as this may be done; to make it clean and to keep it so; to treat it, therefore, as an external wound

would be treated according to antiseptic methods.

The patient lying on his left side or back and close to the edge of the bed, two soft-rubber tubes are passed into the rectum, side by side, as far as they can be introduced without difficulty, which is about eight inches. A No. 17 English (No. 29 French) tube is employed for carrying the fluid into the bowel, and one of two sizes larger for its escape. After attaching the syringe to the smaller tube, the fluid is gently forced into the bowel, and then by slightly moving the tubes up and down, the injected fluid will begin to return through the outlet, thus an in and an out current being soon established.

It may be objected that in this way the rectum alone is washed, but it will be found upon trial that it requires five minutes of washing before the escaping fluid becomes clear, while threads of mucus, blood clots and opaque fluid will continue to flow long after the rectum itself has been emptied; also, that for a time more water enters than escapes. Evidently a current is established in the colon and its contents are gradually washed out. That the colon is not completely cleansed is not a legitimate argument against the method; frequent repetitions of the irrigation will gradually make it clean and keep it so.

Instead of two tubes, which often cause distress, one large-size tube (No. 27 English, No. 41 French) may be used alone, in which case six or eight ounces of the fluid are introduced and then allowed to escape, this procedure being repeated until two quarts or more have been passed through and the outflowing water is quite clear. In most instances the single large tube is much to be preferred as being less painful to the patient and more thorough in its effect upon the contents of the colon. Special irrigating tubes are obtainable from dealers in surgical instruments.

The Practical Effect of this mode of treatment just described, in every instance, is, first, to lessen the frequency of the stools, next their character changes, the blood and pus diminish, and after two or three days normal fecal matter may appear in the discharged fluid.

A cardinal point upon which I have insisted is, that in dysentery the rectum is like an overdistended bladder, discharging its overflow, the contracting and irritable sphincter retaining a large residuum of decomposing fluid. If by suppositories or opiates the number of stools is diminished, no good but instead a great deal of harm is done. As the result of repeated irrigations, the frequency of the movements will gradually lessen until the evacuations take place only through the tube at the time of its introduction. This has been demonstrated so often that it may be said to be an invariable rule, and this fact is even more marked in cases of extensive colitis with large, foul-smelling fluid evacuations.

In case the irrigations are followed by much irritability of the rectum or by abdominal pain, a suppository of 1-2 grain of the aqueous extract of opium or of 1-8 to 1-4 grain of morphine may be introduced. In a short time, however, this may be omitted, or resorted to only to quiet nervous irritability or induce sleep, although for this purpose a subcutaneous dose of morphine is better.

The quantity of fluid employed should vary from one to three quarts, according to the intensity of the inflammation and the length of time for the outflowing current to become clear. The procedure should be repeated at intervals of from three to six hours, the shorter interval for the severer cases, the intervals to be gradually lengthened as the patient improves. *Relapses* should be met at once by a return to active treatment.

Choice of Antiseptics.—The harmless antiseptics are to be preferred, hence boric acid, salicylic acid, the sulphocarbolates or naphthol may be employed. The first of these is perhaps the best of all, and the desired result is to be attained rather by the frequency of irrigation than by any peculiar quality of the drug used, and boric acid will be found satisfactory in every way. Solutions of quinine, 1 : 5000 or 1 : 2500, or even 1 : 1000, are spoken of with special favor by Osler. So also solutions of mercuric chloride (1 : 5000 or 1 : 3000) have received the

commendation of many practicians that they deserve trial in severe cases. Great care, however, must be exercised to secure an immediate and complete evacuation of this corrosive fluid, while frequent irrigations with this chemical involve obvious danger. Diluted solution of hydrogen dioxide can be conveniently used without risk to the patient.

Astringents, as for instance alum, copper sulphate, lead acetate, silver nitrate, have a much more restricted use by injection and irrigation than drugs of the antiseptic class. The former, however, may be substituted for the latter, when the intensity of the symptoms has abated and the discharges have become more diarrheal in character, or when there is a tendency for the disease to pass into the chronic form.

Irrigations with silver nitrate (20 to 30 grains to the pint), are especially useful when the presence of pus in the discharges shows the persistence of unhealed ulcers. If these ulcers are in the rectum (and an examination ought to always be made to see whether this is the case), they may be touched, through a speculum, with strong solutions of silver nitrate or with carbolic acid.

Special Symptoms.—During the progress of cases of dysentery there are many special symptoms that equire treatment as they appear. Thus sleeplessness is combated by morphine administered subcutaneously, as already suggested. The failing action of the heart is met with digitalin, strychnine, nitroglycerin, and possibly, in some cases, by alcohol.

When improvement has set in, there is danger of too early extending of the diet, and great caution must be exercised in permitting solid foods.

Now, the foregoing is Johnstone's treatment of dysentery, and in many ways it is very efficient. Simply to irrigate the rectum and the intestinal canal is wise, provided there is not too serious ulceration and degeneration of the intestinal mucous membrane, in which case, as I have remarked before, there may be some danger attending the use of enemas or irrigation. But even though we resort to the washing out of the intestinal canal, as recommended above, we should not discontinue the intestinal antiseptics internally, for there is no question but that the proper use of the sulphocarbolates will do wonders toward checking the discharges and healing the ulceration of the bowel.

The Use of Suppositories containing astringents, morphine or antiseptic drugs is a favorite method of treating some forms of dysentery.

When the inflammation is confined to the rectum alone, as shown by very small stools containing blood and mucus, suppositories of the aqueous extract of opium or of morphine will relieve the tenesmus and the frequent efforts at stool. There is an advantage in using morphine in this way in conjunction with the preliminary irrigation, but care must be taken to give only the smallest doses that will afford partial relief, and no attempt should be made to arrest the discharges completely. The addition of an astringent to the suppository is invaluable. The effect of cocaine, curiously, is not as favorable as might be expected from its anesthetic influence upon mucous membranes.

Opium (or Morphine) may be found to be necessary in the treatment of some cases of dysentery. There are objections to it, however, as it arrests peristalsis and causes an accumulation in the bowel of matter that should be expelled. It is in cases with large, liquid, putrid stools that opiates do positive harm by arresting the same. But here, too, the irrigation method, by keeping the bowel empty, removes much of the danger from that source, and this procedure should not be neglected.

The indications for opium seem to be chiefly intense abdominal pain, sleeplessness from pain or frequent stools, or an excessive number of stools. Dover's powder, deodorized tincture of opium or morphine hypodermically are the best forms for its administration. For many reasons the latter is to be preferred, the doses being sufficient to subdue great suffering and to keep the nervous system in comparative repose; but any effect approaching narcotism should be

most carefully avoided by giving small doses at first and at safe intervals.

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THE TREATMENT OF DYSENTERY, BACILLARY AND AMEBIC

Dysentery is one of the maladies which modern science compels us to rewrite completely. All the old work on this malady may be set aside, since the discovery that there are two distinct forms dependent upon different causes, running different courses, and amenable to different treatment—renders all of the older theories and deductions obsolete.

Acute Dysentery is generally due to the bacillus of Shiga. This form does not tend to cause ulceration of the intestines or hepatic abscess. It may occur in any part of the country. It is not generally understood, however, that an acute attack of this form of dysentery, even although mild, may leave a chronic infection of the bowel, the individual thus becoming a dysentery carrier, capable of transmitting the disease wherever he goes. I have had under treatment several cases of chronic ill health, resisting all sorts of treatment—medicinal, hygienic, climatic and the socalled physiologic therapeutics in all its forms—until the true cause was discovered, the stools swarming with Shiga's bacilli.

Treatment of Acute Dysentery.—In this form of dysentery an excellent method of treatment is the following:

Empty the bowels by means of calomel, followed by saline laxative; disinfect them with a sufficiency of the sulphocarbolates, employing the sulphocarbolate of zinc, sodium or calcium, as the case may be, or the combination of the three, which is very effective. Whichever is used, it should be pushed to full dosage and this sustained until the bacilli are no longer to be detected in the stools.

Great benefit also follows washing out the large bowel with copious antiseptic enemas, any antiseptic answering. I would suggest the sulphocarbolate of copper, 1 grain to the ounce, copper having proved exceedingly effective against many microorganisms. The injection should be given once a day, and I believe that, after it has been employed, it is well to wash out the bowels with a saline solution.

Amebic Dysentery is an altogether different disease. While the amebic parasite may occasion acute dysentery, the result is more generally the chronic form, and more likely to be attended with ulceration and to be followed by abscess of the liver.

Quinine has acquired quite a reputation in the treatment of the amebic form of dysentery, given internally and pushed up to full dosage, while at the same time the large bowel is washed out with copious enemas containing as much quinine as can be borne without causing irritation, which is a matter of experiment. It is best that an acid be added, acids being destructive to the ameba, as well as to other pathogenic germs. Probably one grain of quinine to the ounce, with several drops of dilute sulphuric acid, is a good average. It is better to begin with mild strengths and increase them as they are borne. The intestinal antiseptics are also useful here.

Ipecacuanha and Emetine for the Bacillary Form.—It is only in the bacillary form of dysentery that ipecacuanha is of value. This utility has been abundantly proved, not only in India where the treatment originated, but in all parts of the world. The reports from the Philippines are especially favorable. When ipecacuanha itself was employed, one full dram of the powder was given at a dose, with all possible precaution to prevent vomiting.

We can do better now, excluding the more irritant principles of this drug by giving the pure emetine. It is better to delay absorption by enclosing it in a salol-coated capsule or by diluting it with talcum powder. I would suggest that if the pure alkaloid is employed, a milligram is a sufficient dose, and that this may be repeated every hour until nausea indicates the limit of its effective dosage. This procedure may be repeated every day as long as the attack lasts.

The more actue the attack, the more pronounced the beneficial effect of emetine.

Usually its effects are shown by the appearance of bilious, spinach-colored stools, and by a marked moderation of the acute symptoms; the pain and straining cease, the fever subsides, the pulse resumes its volume, the skin moistens, and convalescence, in most favorable cases, is established within a few hours. About eight hours usually elapse after the emetine is given before the bilious stools appear.

The distinction between the two forms of dysentery may be inferred from a study of the symptoms as herein suggested, and confirmed by a bacteriologic examination of the stools. This is not a particularly pleasant work, but the physician who fails to avail himself of precision in diagnosis for such a reason as this has mistaken his profession and would better give up practice and become a salesman in the perfumery department of a drugstore.

Management of Collapse.—Sometimes, especially in the tropics, attacks of dysentery come on suddenly and violently, the patient being prostrated from the first, and collapse quickly supervening. Here the indication is to arouse the resisting powers of the system, and for this purpose the most powerful revulsive should be employed.

The following *formula* has been much used for such cases, as well as for the choleraic attack and for pernicious chill: spirit of camphor, chloroform, oil of cajuput, tincture of capsicum, of each 2 drams; stronger ether, 1 ounce. Dose, 1 teaspoonful, to be taken undiluted, and repeated if necessary in thirty to sixty minutes.

Besides this, hot mustard baths may be employed, and the hypodermic injection of 1-100 grain of atropine. It is not safe to inject strychnine here, even in an average physiologic dose, for instead of relieving the collapse, the symptoms may be intensified. After reaction has been brought about, the ordinary treatment of dysentery may be instituted.

The Danger of Opiates.—Opiates are the most dangerous drugs that can be used in dysentery. In my very young professional life I fell into this mistake and was horrified to see a patient with dysentery die although all alvine discharges had been completely suppressed by the opiates. I never afterward repeated that mistake. The only benefit to be derived from opiates is to check over-excited peristalsis, but this is better effected by the use of small very hot enemas. It is doubtful whether there is advantage in adding anything to the water here employed, but I have thought that nitrate of silver, 1 grain to 8 ounces, had a good effect. The hotter the solution (within reason) used, the greater will be the relief.

Importance of Microscopic Control.—I am inclined to believe that when the practice of examining the stools becomes more of a routine, many cases will be found of persons who, after *apparent* recovery from dysentery, continue to harbor the infective germs and suffer from more or less ill health, while disseminating these disease-agent wherever they go. But it is not the typhoid bacillus alone which is spread in this manner, for there are dysentery carriers as well as typhoid carriers. These cases further illustrate the practical importance of the system of intestinal antisepsis, and go to vindicate those of us who have steadily adhered to the use of this custom despite the attacks which have been made upon it.

W. F. Waugh.

Chicago, Ill.

EXAMINATION QUESTIONS

1. Why is "dysentery" called a purely "clinical" term?
2. Describe fully the clinical conditions to which the term is applied by physicians.
3. Differentiate the various clinical pictures presenting themselves, and discuss their etiologic differences.
4. Describe the causes of the several varieties of dysentery and the most prominent anatomical changes observed.
5. How do you distinguish between an attack (incipient and developed) of dysentery and typhoid fever?
6. Define the general characteristics of bacteria and amebæ.
7. Outline the treatment, in each of the two general classes of dysentery, as laid down in this lesson.
8. What is your own routine treatment?
9. What are the objections to opiates; and when are they indicated?
10. What is your experience with ipecac, emetin, and quinine?
11. Mention your experience with enemas.

ELLIS' "PSYCHOLOGY OF SEX"

Studies in the Psychology of Sex. By Havelock Ellis. Vol. VI, Sex in Society. Philadelphia: F. A. Davis Company. 1910. Price $2.00.

Havelock Ellis' "Sex in Society" is a discussion of the varied sociologic phases of sex. The physician is the great sociologic teacher of today, and upon health, in the broad sense, turns a people's moral and mental status. As Richard Baxter of "Saint's Rest" fame put it centuries ago, "since black bile is the bed through which the devil worketh, it is possible by physic to cast him out." Quaintly put, as is this principle here, it underlies most of the needed ethical and other reforms in sociology.

Discussions of social hygiene that are purely medical or purely juridical or purely moral or purely theological, remarks Havelock Ellis in his preface, not only lead to conclusions that are often entirely opposed to each other but they obviously fail to possess complete applicability to the complex human personality. The main task before us must be to ascertain what best expresses, and what best satisfies, the totality of the impulses and ideas of civilized men and women. So that, while we must constantly bear in mind medical, legal and moral demands—which all correspond in some respects to some individual or social need—the main thing is to satisfy the demands of the whole human person.

It is necessary to emphasize this point of view because it would seem that no error is more common among writers on the hygienic and moral problems of sex than the neglect of the psychological standpoint. They may take, for instance, the side of sexual restraint, or the side of sexual unrestraint, but they fail to realize that so narrow a basis is inadequate for the needs of complex human beings.

From the wider psychological standpoint we recognize that we have to conciliate opposing impulses that are both alike founded on the human psychic organism. A new guiding impulse, reinforcing natural instinct and becoming in time an inseparable accompaniment of it, will lead civilized man on his racial course. Just as in the past the race has, on the whole, been molded by a natural, and in part sexual, selection that was unconscious of itself and ignorant of the ends it made toward, so in the future the race will be molded by deliberate selection, the creative energy of Nature becoming self-conscious in the civilized brain of man.

This is not a faith which has its source in a vague hope. The problems of the individual life are linked on to the fate of the racial life, and again and again we shall find, as we ponder the individual questions we are here concerned with, that at all points they ultimately converge toward this same racial end.

Since, therefore, we have here to follow out the sexual relationships of the individual as they bear on society, it will be convenient at this point to put aside the questions of ancestry and to accept the individual as, with hereditary constitution already determined, he lies in his mother's womb.

It is the mother who is the child's supreme parent. At various points in zoological evolution it has seemed possible that the functions that we now know as those of maternity would be largely and even equally

shared by the male parent. Nature has tried various experiments in this direction, among the fishes, for instance, and even among birds. But reasonable and excellent as these experiments were, and though they were sufficiently sound to secure their perpetuation unto this day, it remains true that it was not along these lines that Man was destined to emerge.

Among all the mammal predecessors of Man the male is an imposing and important figure in the early days of courtship, but after conception has once been secured, the mother plays the chief part in the racial life. The male must be content to forage abroad, and stand on guard, when at home, in the antechamber of the family. When she has once been impregnated, the female animal angrily rejects the caresses she had welcomed so coquettishly before, and even in Man the place of the father at the birth of his child is not a notably dignified or comfortable one. Nature accords the male but a secondary and comparatively humble place in the home, the breeding-place of the race; he may compensate himself, if he will, by seeking adventure and renown in the world outside.

The mother is the child's supreme parent, and during the period from conception to birth the hygiene of the future man can only be effected by influences which work through her.

Fundamental and elementary as is the fact of the predominant position of the mother in relation to the life of the race, incontestable as it is, it must be admitted that it has sometimes been forgotten or ignored.

In the great ages of humanity it has indeed been accepted as a central and sacred fact. In classic Rome, at one period, the house of the pregnant woman was adorned with garlands, and in Athens it was an inviolable sanctuary where even the criminal might find shelter. Even amid the mixed influences of the exuberantly vital times which preceded the outburst of the Renaissance, the ideally beautiful woman, as pictures still show, was the pregnant woman.

But it has not always been so. At the present time, for instance, there can be no doubt that we are but beginning to emerge from a period during which this fact was often disputed and denied, both in theory and in practice, even by women themselves.

It is a singular illustration of the tendency of forgotten human ideals as well as primitive instincts to reappear during periods of emotional stress, that pregnancy ideals of beauty should crop up not only in Reformation art like that of Kranach, but also in the fashions during the close of the "Red Terror," as Carlyle ("French Revolution") sneeringly points out.

The discussion of prostitution by Ellis is much broader than is usual. He does not, like many blatant "reformers," confuse the "white slave," forced into prostitution by the impossibility of supervision of brothels under existing conditions, with the mass of the prostitutes in whom prostitution is a "confidence" operation taking the lines of least resistance. This great hysteric error mars most of the work of the last decade. The United States legal authorities are blatantly claiming originality in attempts to suppress an abuse debated by the British House of Lords as long ago as 1880.

"Sex in Society" will be found a peculiarly valuable sociologic work of reference. It is well issued.

James G. Kiernan.

ELLIS' "THREE MODERN SEERS"

Three Modern Seers. By Mrs. Havelock Ellis, author of "Seaweed," "A Cornish Idyll," "Attainment," "Steve's Woman," "My Cornish Neighbors." London: Stanley Paul & Co. 1910.

Mrs. Havelock Ellis' "Three Modern Seers" is a delightfully written picture of three leaders in thought in the Nineteenth Century who have been much more appreciated in the Twentieth. Concerning the "three seers chosen as representing various sides of the moral, intellectual and spiritual aspects" of the age, Mrs. Ellis uses the following language:

"Hilton, a veritable Don Quixote of the newer morality; Nietzsche, a modern Lucifer of the intellect; and Carpenter, a Child of the

Spirit, all meet on the common ground of a striving toward perfection of individual character as the chief factor in social progress. However contradictory their methods may appear at first sight, these prophets of a sane morality are at one in their plea for a solidarity working from within outward. In their individual conceptions we find that their belief is, that evil is the handmaid of good, and that good is the ultimate conclusion of the whole matter. If the messages of these three latter-day prophets were amalgamated, a practical working scheme for daily living could be easily evolved. To have the courage to face problems according to Hilton, to dare to knock down traditions and conventions according to Nietzsche, to be serene and brave enough to live out what we have discovered, through our introspection and destruction, according to Carpenter, is the way to the larger vision and the definite action.

"Every experiment in fine living is a novitiate for the newer experience which is bound to follow. Today we are on the verge of a great upheaval in our social life, and the followers of men like these three seers of the new order must have the courage to work into definite action the ideals the forerunners have proclaimed."

Hilton, the author of "Rest and Pain" (published in an American edition by Wm. Wood & Co., in 1881), was a lucid outliner of the principles of medical and surgical uses of the rest treatment. Like the paranoiac Nietzsche, albeit in a well-balanced way, he protested against the morbid sympathy which underlies the quackery of Eddyism, Dowieism, Stillism (osteopathy), and useless surgical operations. There is much that is sound in Nietzsche's philosophy, but it is egocentrically marred and twisted by his paranoia. The morbid element in Carpenter looms up in his vegetarianism which is a product, not of hygienic consideration, but of a zoophily that ignores the teachings of race development. Vegetarianism, as was found by Dr. Hahn, son of the founder of the German Society of Vegetarianism, means early arteriosclerosis and hence a mental bias preceding the gross lesion.

The book is portable, printed in clear type, and will well repay perusal by the physician. JAMES G. KIERNAN.

REDFIELD'S "ACTIVE PRINCIPLES"

A compend of the Active Principles, with Symptomatic Indications for Their Therapeutic Use. By Harold Hamilton Redfield, M. D., Professor of Therapeutics, Bennett Medical College, Chicago. The Clinic Publishing Company. 1910. Price $0.75.

This little volume will receive a cordial welcome from the modern therapeutist—the man who believes in using definite remedial agents with scientific precision. The literature of the active principles is yet in the making, and the busy practician, unable to find time to read numerous periodicals, naturally finds himself wondering just what results other men have secured from the use of this or that alkaloid.

New uses for even such well-known and commonly used drugs as atropine, aconitine and emetine are constantly being discovered and not a month passes that we do not learn something definite regarding the action of a score of active principles. Facts—based upon extensive clinical experience—are what the general practician desires, and these Dr. Redfield furnishes. The author states frankly in his preface that he has not attempted to "tell all there is to tell or to cover the entire field of alkaloidal materia medica," but from the constant use of certain remedies he has not only learned many new things but proven correct—or amplified—therapeutic ideas hitherto advanced tentatively.

For instance, anemonin (an active principle found in pulsatilla anemone or anemone pratensis) is known to be "useful in amenorrheas, dysmenorrheas, and in epididymitis," but Redfield has found the drug to exert its beneficial influence more markedly in pale anemic women with Niobe-like tendencies as also in patients who complain of chilly sensations, nausea and bearing-down pains in the abdomen and sacrum. If the "pains are severe and cause the patient to toss restlessly from side to side," then anemonin will give relief.

So also Redfield has found this drug serviceable in certain gastric disorders and in the "heavy, throbbing headaches resulting from dietary indiscretions;" in diarrheas appearing at night, which the stools are a mixture of mucus and blood—no two being alike;" further, in subacute bronchitis, orchitis, whooping-cough, certain cutaneous diseases, phlebitis, and that form of "rheumatism" in which the pains shift from one part to another, there being little swelling or redness of the affected area, the part, on the contrary, appearing white and cold.

The chapter on Cactin is peculiarly interesting; the special indications for this drug being alliteratively given as "congestion, contraction and constriction."

No physician can read a single page of this "Compend" without getting a new idea or light upon the action of the drug discussed, which will enable him to use it to better advantage. The book is attractively bound, of convenient size for desk use, and should be in the possession of every up-to-date practician. A knowledge of its contents will "make for Success."

A LITTLE BOOK ON IMMORTALITY

Dr. C. A. F. Lindorme, of Atlanta, Georgia, has sent us his booklet "On Immortality." This is a subject in which every man ought to be interested and especially every physician. The good Doctor's discussion of the subject is one which will appeal to many readers of the CLINIC.

The price is only ten cents. It may be procured from Dr. Lindorme himself or from the Fowler & Wells Co., 18 East 22nd St., New York City, N. Y.

IMPERIAL "STEREOSCOPIC ANATOMY OF THE HEAD AND NECK"

The Imperial Stereoscopic Anatomy of the Head and Neck. Prepared and Edited by Professor D. J. Cunningham (University of Eninburg), Professor David Waterson (University of Edinburg), and Professor Matthew H. Cryer (University of Pennsylvania). New York: Imperial Publishing Company.

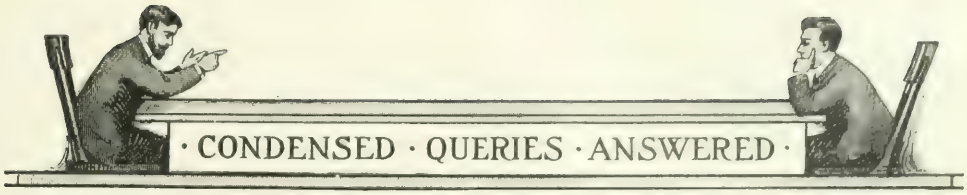
Concerning the underlying idea of this collection the Prospectus aptly says: "Stereoscopic photography as a form of illustration is proving of immense practical value in the modern method of studying the sciences, and especially that of anatomy and surgery. Viewed through a good stereoscope an object is given a more perfect and realistic representation of the original than any artist could make, for his sketch would lack natural perspective."

This highly valuable series of stereophotographs illustrates the anatomy of the head and neck in a most perfect manner. The dissections from which the pictures were taken are carefully carried out, and the student will find the views an invaluable help in the study of the anatomy of these regions. These pictures offer a means of refreshing one's memory and of ascertaining the topical anatomy of his operating fields.

KELLY'S "STEREO-CLINIC"

Stereo-Clinic. By Howard A. Kelly, M. D. Baltimore. Southworth Company, Troy, N. Y.

Realizing the many difficulties attending the successful teaching of surgery, even at the operating table, Dr. Kelly has attempted to illustrate and perpetuate the successive steps of important operations by stereoptical views, which he, justly, we believe, holds to be superior both to photographic reproductions and to plaster casts, since the former can only give flat reproductions of the operation and the latter, at least for mechanical reasons, can not become so widely of use and benefit as do the stereoptical views. These illustrate beautifully all the successive steps of the operations shown and permit the student to study the work of the surgeon at his leisure; surely an advantage over the most careful watching of operations, which needs are a "passing show" and which do not always permit a close observation. The publishers are to be congratulated on the beautiful execution of the pictures. That the subject-matter itself is unexceptional in point of selection and usefulness is something upon which we hardly need insist in a work by Dr. Kelly.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5626.—"Glenard's Disease." E. K. L., Kansas, writes as follows: "Can you suggest treatment for Glenard's disease? In my case the principal prolapse is of the liver, the lower edge being below the umbilicus. The patient is a primipara, who had twins (6 and 6 1-2 pounds), one month ago. The organs return to normal position, in the recumbent posture, but drop on sitting or standing. She is constipated, otherwise her health is good. I am using nuclein, Schuessler's calcium fluoride, laxatives, etc., together with zinc sulphate and hamamelis to the abdominal walls as a local astringent. She carried her babies very high and on the right side, the first being transverse and the second in the right lumbar region at right angles to the first. Uterus is contracting normally. She has weaned the babies, her milk failing. My books touch the subject very slightly and give practically no treatment."

Glenard's disease is not easily cured. You cannot expect very much result from the use of astringents externally applied to the abdomen. No drugs so applied could exert any influence upon the enteroptosis. Displacement of the liver is not common, the stomach suffering chiefly. Dyspepsia, dragging pain in the back, throbbing in the abdomen (pulsation of abdominal aorta), as also neurasthenia, are common symptoms. You must bear in mind that ptosis may follow the loss of normal support from the abdominal wall or occur spontaneously in young women of the neurasthenic type.

To treat the condition rationally, one must study his patient carefully. A well-fitting abdominal bandage is an essential and in many cases will alone prove curative. Constipation must be overcome, assimilation and digestion improved, and neurasthenic conditions controlled. Very rarely surgical interference is called for. You might with advantage give hydrastin, juglandin and strychnine before meals; papayotin after food, and pancreatin an hour later. Dilute phosphoric acid, 10 minims in a glass of water, with meals. Nuclein solution, 6 to 8 drops under the tongue, morning, noon and night. Keep the skin active and clean with sponge-baths and have the patient spend a good deal of her time in the open air. Carefully regulate her diet.

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QUERY 5627.—"Sodium Sulphocyanide." O. G., Indiana, referring to the mention of sodium sulphocyanide, on page 484, in this journal for May, asks us to tell him the usual dosage.

Sodium sulphocyanide so far is principally used as a reagent and practically unused in this country in medical practice.

In the editorial referred to, "The Value of Therapeutics," mention is made of Pauli's experiment. It is a question, however, whether any other clinicians have used this chemical to any great extent. Sodium sulphocyanide (or rhodanide), NaSCN, is marketed in the form of colorless crystals or a white powder. It is soluble in alcohol and in water.

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QUERY 5628.—"Tulip-tree Bark in Tobacco-habit." J. E. J., Illinois, asks whether we know anything about the value of the

inner bark of the tulip-tree as a cure for tobacco-habit.

The inner bark of the tulip-tree (synonyms: white-wood, poplar, yellow poplar, liriodendron tulipifera) is used very slightly as an aromatic stimulant tonic. It has proven beneficial in chronic rheumatism, intermittent fever, chronic gastric intestinal disorders, colliquative diarrhea of phthisis, night sweats, worms, and hysteria. The warm infusion is diaphoretic and in certain states of the system has proven diuretic. An alkaloid (tulipiferine) has been isolated. The bark also contains volatile oils, a peculiar camphor, an acrid resin, and extractive matter. The active properties are taken up by water or alcohol. Tulipiferine is present in very small quantities in liriodendrin, the camphoraceous body, which latter has an aromatic, bitter, acrid taste, and is present in considerable amount.

Any aromatic bitter might be of service in controlling the desire for tobacco, in fact any bark possessing stimulant and tonic properties could be chewed with advantage by the individual desiring to relinquish tobacco. We have not personally heard and cannot find any record of tulip-tree bark being so employed. Should you find any information on the subject or experiment clinically, we shall be pleased to hear further from you. We present the suggestion to the readers of CLINICAL MEDICINE, some of whom possibly can throw light on the subject.

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QUERY 5629.—"Maggots in Vomitus." J. B., Oklahoma, reports an interesting case of this kind, writing as follows:

"On Tuesday evening, May 24, Mr. D. told me that he had become nauseated just after eating his supper and then threw up his meal, and with this some worms. Returning to his house, he brought back three of the worms, still squirming and crawling, although having been vomited up at least thirty minutes before. I told him I thought they were mag ts. He objected, declaring that there were a lot of them, and that he was very particular about his food, did not eat any raw vegetables, but little meat, and what food he ate was well cooked, his main diet being milk, butter and bread-stuffs. He is a laboring man and was sincere in his statements.

"Those worms have the appearance of maggots. The head tapers to a point, the tip of which is black. The tail-end is blunt. I gave him a round of calomel and santonin, since which there has been no further trouble. My opinion is that he swallowed the ova in his food and they matured in his stomach. I have seen patients vomit roundworms, but never anything like this before. There is nothing in any of my medical books which describes any such worm in the human system. If these were maggots, what would have been the probable results if they had not been vomited?"

This subject has been discussed many times in the past, and, as you know, individuals often have claimed to have vomited maggots, worms, toads, small frogs and snakes and the like. In many instances these claims have been most sincerely advanced, the reptiles or parasites gaining access in some unexplained way to the vomitus.

We need not explain to you how absolutely impossible it would be for the ova of the bluebottle or other fly to hatch in the stomach or even survive for a few hours the action of the gastric juice. We may, with absolute certainty, exclude the theory that your patient ingested ova which matured in the stomach to be vomited later on. It is equally impossible for such a parasite to reach the stomach from the intestine. Only one plausible explanation remains, namely, that the man swallowed food containing the larvæ a short time before the vomiting attack. Had larvæ been any length of time in the stomach or subject to the action of the gastric juices, they certainly could not have been voided "squirming and crawling." But we cannot comprehend how a large number of larvæ could be vomited by an individual who is "particular about his food."

There is just one other point to be considered, and that is the possibility (a very doubtful one) of the existence of maggots in the nasal cavities of this individual. Several such cases have been reported, as you doubtless are aware, of maggots in the nose, the

eggs of meat-flies having been deposited upon a raw surface and the larvæ developing in the nasal cavities. In one case the patient was greatly annoyed by an itching and crawling sensation in the nose, but thought nothing particular of it until several maggots had dropped from the nostrils upon the table in front of him. A physician removed a score or more of well-developed maggots. The writer recalls reading the description of another case of very similar character occurring in the practice of an Indiana physician, last year. It might be well to examine your patient's nares thoroughly.

As to "the probable result had the maggots not been vomited", without doubt they would have been digested, with the fate of all other animal matter ingested.

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QUERY 5630.—"Codeine Dosage in the Anodyne Formula." J. L. A., Pennsylvania, comments on the formula of the "anodyne for infants" granule. The codeine-content is 1-67 grain, and doses of one or two granules every fifteen or twenty minutes until result is obtained are recommended. This seems to the doctor "such an enormous dose of codeine" that he thinks possibly there is a mistake somewhere. He writes: "It would seem to me that 1-670 grain would more nearly come right with the proportion of the other ingredients. To my mind, 1-67 grain of codeine would be a fair dose for a child one year old, not to be repeated within two to four hours."

The quantity of codeine present in the anodyne for infants granule is 1-67 grain. The anodyne is usually given in sweetened solution and always so exhibited to very young infants.

Bear in mind that the directions "to effect" mean remedial or physiologic. If the physiologic action of the drug is apparent before remedial results are secured medication should be stopped, as we have either erred in our selection of the remedies or omitted some essential therapeutic procedure.

As a matter of fact, 1-67 grain of codeine is not an excessive dose for a child presenting the disorders calling for the use of an opiate. should not hesitate to give a second granule in thirty minutes. Naturally we should not continue such exhibition but order one-half or a whole teaspoonful of sweetened solution at desired intervals to effect. As little as 1-670 grain of codeine would practically be useless, as you will readily discover by experiment.

When dealing with an infant a month or eight weeks old, the condition present not being severe, it would be wise for the physician to prepare a solution of the granule (1 granule to the fluid dram), ordering 10 to 20 or 30 drops, as occasion may demand, half-hourly or hourly. If immediate relief is necessary, however, the granule itself may be given, and if it does not prove effective within thirty minutes, a second such dose might be exhibited with perfect safety, the effect being maintained (or even enhanced) by several subsequent smaller doses. Children, as you are aware, bear codeine fairly well, the dose of this opium alkaloid for an adult, in fact, being 1-2 to 2 grains. The effect of codeine in the formula in question is also mitigated by the presence of nickel bromide and lithium carbonate.

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QUERY 5631.—"Phenol Applications on Scabies." W. H. Y., Arkansas, in giving a treatment for ordinary itch (scabies), says: "This is a local trouble caused by the itch-mite. A local application destroys the germ and cures the patient at one application. Apply phenol, pure, to the parts; and when it is a whitish gray color, wash well with alcohol or acetic acid to prevent a burn. Thus you have entirely removed the cause. This treatment is cheap but sure."

Doctor, the method you outline has long been generally known. However, if the use of carbolic acid suggested itself to you it shows that you do your own thinking and your patients are to be congratulated.

Unfortunately even the application of pure phenol (neutralized with alcohol subsequently) does not always prove a specific treatment, the itch-mite boring deeply into the skin where carbolic acid cannot possibly destroy it—unless the skin itself is also destroyed. Superficial scabies can be so cured, however.

QUERY 5632.—"Wanted, A Remedy for Eczema." W. C. B., Iowa, wants a remedy for a chronic case of eczema. The doctor remarks that such a multiplicity of remedies are mentioned that it is difficult to select the proper ones. He has tried the old regular drugs, but without success.

The reason for the mention of a multiplicity of remedies for eczema is that a multiplicity of different conditions present themselves in various individuals. The treatment which proved efficacious in A's case might prove worse than useless in B's.

The remarkable results secured by the positive therapeutist are practically due to the fact that he ignores named diseases, that is, does not treat "eczema," "pneumonia," "typhoid fever," etc., but familiarizes himself with the underlying disorders of the body-chemistry and selects his remedies with a clear conception of the pathologic conditions obtaining in the individual.

The local use of some of the distillates of shale containing phenol and guaiacol is nearly always indicated. Applications of any mild antiseptic oil also generally is useful. Especially is this the case in dry eczema. In every case it is essential to eliminate thoroughly and to maintain intestinal cleanliness. The elimination of solids must be kept to standard and a normal output of urea maintained. Iridin and alnuin may be pushed advantageously together with nuclein and arsenic sulphide. In some cases, however, arsenic in any form is contraindicated.

Suppose, Doctor, that you give us a clear idea of the condition you have to deal with, accompanying the full clinical report with a specimen of the patient's urine.

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QUERY 5633.—"The Alkaloids and 'Specific Medicines.'". C. R. K., Ohio, who has always been a firm believer in the use of active principles, wishes to know of the relative advantages of the specific medicine of the eclectic practicians, the galenic remedies and the alkaloidal granules.

We would suggest that the doctor read carefully that portion of the "Digest" subheaded, "An Alkaloidal Primer;" also the chapter, "How to Begin the Practice of Positive Therapeutics." Then note carefully the paragraphs, "What Alkalometry Does," and "What Alkalometry Means." We think he will then understand why the intelligent use of small quantities of stable, evenly potent and definitely acting remedial agents is preferable to any other form of medication.

Unfortunately, we have not as yet been able to isolate the active principles of all the valuable vegetable drugs and therefore it is frequently desirable to use the socalled "specific medicines" or standardized extracts, physiologically tested. We look upon Lloyd's preparations as the next-best thing to the active-principle granules and tablets. Specific medication, whether taught by Scudder, Burggraeve, Abbott, or anyone else, is rational, and the profession is deeply indebted to its exponents. The merit of the work of John Uri Lloyd, Ellingwood and other eclectic writers will sooner or later be universally recognized.

The active-principle remedies are superior to "specific medicines," (1) because they are easily portable; (2) because they are not liable to evaporation or deterioration; (3) because at any place and under any circumstances the physician can immediately exhibit the desired dosage of the exactly indicated remedy and repeat the same until the desired effect (or physiologic action of the drug) manifests itself. Using any form of medication except the alkaloidal granules and tablets, the doctor could not carry some sixty or seventy varieties of drugs (and several hundred doses of each variety) on his professional visits. The socalled "alkalometrist" does this every day. With a precise knowledge of his materia medica and good diagnostic acumen he is able to make a correct selection of remedies, instead of merely guessing, giving, mayhap, something which fortuitously may do the work or may not.

Those who know most about the crude drugs on the market understand thoroughly their variable quality, and that for instance one parcel may contain, say, ten percent of a certain alkaloid, another sample twice

that quantity, and yet another practically none at all.

Rusby, in a most interesting report, gives a list of drugs grossly and quite commonly adulterated, telling that frequently, indeed, the entire parcel of a given drug proves spurious. Thus powdered gentian, he found, contained fifty percent gunny-sack fiber. Another sample consisted largely of damaged wheat flour. Cut dandelion root proved, upon examination, to consist largely of small stones of adequate size and color and a worthless root. The peelings of chicory are used to adulterate ground dandelion root. Belladonna root contained from ten to sixty percent of poke-root.

The extraordinary lack of results which not infrequently follow exhibition of fluid preparations of belladonna are doubtless due to such sophistication. The doctor giving, without effect, five, ten and even twenty drops of fluid extract belladonna gets an unpleasant shock when toxic symptoms result from the use of half the quantity of a different specimen.

Powdered ipecac, to return to Rusby's report, consisted chiefly of powdered olive pits. Not much emetine or cephaeline there! Ground male-fern root contained not even a particle of active material but the chaff and refuse which the Pharmacopeia directs should be rejected. Spigelia was almost wholly spurious or else largely adulterated. Lobelia consisted of useless stems. Skullcap was represented by a herb of different species. Stramonium was adulterated with chestnut leaves. Henbane consisted wholly or in part of leaves of another species. Digitalis leaves were spoiled, moldy, or mixed with an equal amount of rubbish. (At the present time digitalis is almost unobtainable and the prospects of a crop this season are poor.) Coto and paracota barks were found to be spurious nineteen times out of twenty. Arnica root was found not to be arnica at all. Quebracho and other alkaloid-bearing drugs were found from which the alkaloid had been extracted by foreign manufacturers.

These are but a few examples, but they serve to show the character of the raw material from which the manufacturing pharmacist makes his fluid preparations.

The fluid extract secured from manipulation of several hundred pounds of such adulterated drug would doubtless look as beautiful and taste as unpleasant as the real thing, but the therapeutic results following their use could best be represented by a big interrogation mark.

That these drugs are constantly offered, sold and consumed, proves conclusively the unreliability of at least a proportion of the socalled U. S. P. preparations. There are, of course, honest chemists—firms whose employees are thoroughly skilled and instructed to use only the best drugs obtainable, *but*—the sophisticator is shrewd and the chemist does not investigate each parcel of crude drug which goes into his mill or percolator.

Standardization does help some, and the doctor who dispenses only physiologically tested extracts or tinctures emanating from one of the reputable houses is less likely to lose his faith in the efficacy of medicines than the man who buys anything which is "cheap enough." But he has to "trust to the skill and honesty" of several individuals: the man who identified and passed the crude drug; the chemists who prepared the extract; the physiologic chemist who tested the finished product (standardized it); and, finally, the retail druggist who sold him (or dispensed on his prescription) the extract as from So-and-So's laboratory and duly assayed.

If standardization means anything (and it does), it assures the presence of a certain quantity of active principle. If one can secure that principle absolutely pure and stable, in mathematically correct dosage, without the addition of bulky and useless excipient or vehicle, isn't it desirable to do so? Adulterated or false drugs will not produce the desired active principles. Just so much alkaloid, glucoside or resinoid can be obtained from a given quantity of drug as exists therein—no more. There may be but ten grains in fifty pounds or one hundred grains in one pound—everything depends upon the quality of the drug. But the fifty

pounds of drug containing but ten grains of active principle would make several pints of fluid extract, whereas the one pound could at best produce a quart.

There would naturally be a considerable difference in the efficacy of the two specimens. The alkaloidal granule contains exactly the amount of the active principle that its label states. There is no weighing; no guess-work; no possibility of deterioration from age or exposure; no chance of variation in strength from evaporation or "settling to bottom of the bottle"—just so many full doses of an unchangeable drug of known efficacy. In short, the alkaloidal granules are definite agents.

The best galenics must be more or less uncertain, if for no other reason than the presence (in unknown quantity) of two or more active principles, one of which may neutralize entirely the action of another. If you do get a perfect fluid extract of, say, jaborandi, you can't tell whether pilocarpine or jaborine predominates. Jaborine exerts an influence diametrically opposite to that of pilocarpine. And so throughout the list —the active principle spells "precision," the galenic, "uncertainty."

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QUERY 5634.—"Infantile Paralysis in Arkansas." D. C. M., Arkansas, writes: What do you know of infantile paralysis? We have it here in full sway and do not know definitely the cause or what to do for it. Now I value your judgment very much and I want it just as soon as you can possibly give it to me. I want to know the cause and the treatment if you have it. If you can't give it to me I'm up the stump. Had thirty-five cases here in one day; it is simply awful. Do the best you can for us, Doctor—we're in sore need of advice."

We regret exceedingly that you did not give us a clearer idea of the exact conditions which are obtaining, as seemingly a widespread epidemic of "infantile paralysis" exists.

Physicians in various sections of the country are giving widely different clinical pictures. In several instances death has resulted in four or five days, the temperature not exceeding 103° F. at any time, paralysis existing in both arms and legs, little pain, no opisthotonos or involvement of sphincter. Death seemingly due to respiratory paralysis. In some cases the arm upon one side and leg upon the other have been affected first, the paralysis later involving the other extremities. Again, the arms have been paralyzed early and the leg or legs later. If you have to deal with true anterior poliomyelitis, you must remember that during the acute stage little can be done. The child must be kept quietly in bed in a darkened room, the bowels should be cleansed with small doses of calomel and podophyllin, followed by a saline. Flying blisters may be applied to the spine advantageously, and guaiacol rubbed in over the abdomen or under the arms upon the chest-walls in case the temperature should exceed 102° F.

We should, in these cases, push echinacea and nuclein in full doses, with arsenic iodide, gr. 1-67 every two or three hours for twenty-four hours, then every four hours. Bathe the entire body of the child with warm epsom-salt solution (one ounce to three pints), twice daily. Inunctions of unguentum Credé or intravenous injections of colloidal silver should be tried.

It would not be safe to recommend more than a *basal* treatment, but the physician in charge will, of course, meet conditions as they arise, not forgetting to maintain intestinal antisepsis throughout. From ten days to two weeks after the acute stage is past, the doctor should commence to maintain and improve nutrition of the affected groups of muscles. Electricity, massage, modified gymnastic exercises will prove beneficial. The faradic current may be used to induce contraction of the muscles. If this fails, use the galvanic. Sitting should not exceed ten minutes. Once daily the parts should be massaged thoroughly, preferably with a vegetable oil.

We trust you will give us a clear clinical picture of a typical case, outlining distinctly the peculiar symptoms encountered. You will find a description of a very remarkable case of a similar nature in another column.

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Tree Drugging and Therapeutics

WHAT wonders the jay reporter sees—with his cerebral eye! Here is one: A farmer, one of the Blue Hen's enterprising chicks, had a plum tree decrepit with age and past the period of bountiful fruiting. Boring a hole in the wood, the owner inserted a spoonful of calomel and plugged up the hole. Next season the tree, that before had yielded yearly but a handful of fruit, bore hundreds of quarts. Now the Delawarians are asking how the fruit is going to affect those who eat it.

And why not? Of late the farm journals teem with illustrated papers on tree surgery —why not tree medicine? We may thus develop a useful line of experiment that may aid in elucidating some obscure problems in human therapeutics.

But will this be the means of also developing a new variety of antivivisectionists? Methinks I scent the coming battle. If trees are affected by drugs, the trees must have nerves—a nervous system necessitates a center, a brain. This implies a mind, an ego, quite as a house implies a habitant; and this ego must have consciousness and the other faculties of a sentient being. How unjustifiable therefore to subject the poor, defenseless tree to such outrages, for our own selfish purposes!

Already is taking shape the Society for the Suppression of Experiment upon the Vegetable World, with a central organization and many branches, State, City, Ward and Precinct. Some advantages will accrue to the founders of the new society. They will not be denominated the Association of Insane and Ignorant Meddlers, for that has already been applied to the antivivisectionists; nor the Miscellaneous Army of Cranks, for Battle Creek has preempted that cognomen; nor the Aggregation of Unteachable Wrongheads, for the antivaccinationists might sue for infringement of rights. In truth, it seems as if most of the apt designations for conglomerated silliness had been already utilized; but the resources of our language are incalculable and unexpected, and a suitable title will yet be devised.

More seriously—why not utilize the tree-drugging suggestion as a means of medicating humanity? Thirty years ago a French physician sought to establish a sanatorium in which he fed his patients milk from medicated cows; one lactiferous animal being fed upon arsenic, another upon iodine, and so along. Take the plums from

the venerable but hydrargyrized tree and prescribe them for ancient but not venerable sinners who seek to enter the lists of Venus and emerge not unscathed.

Why not? If a plum tree responds to and imbibes mercury, why not a pear take up iron, an apple silver, and a peach phosphorus? Could not solidity be imparted to the melon by a hypodermic diet of lead? Could we not foster the blackberry on zinc, and develop a combination of tannin with the metal that would effectively meet the needs in the lesser war, the guerilla, of the Cyprian goddess? By treating our cucumbers with copper we might render more vivid their green, and at the same time endow the bowel-knotting delicacy with the antidote that smoothes out its angry kinks.

Truly, there would seem to open up a number of desirable ways in which the Delaware idea might be developed. But we dislike, in dealing with matters so grave as medical topics, to leave the ground of sober, settled fact and wander off in the byways of imagination. So we will leave the subject here.

Success is only for those who are willing to stand by their standards—who are ready to endure the siege of misjudgement—who are prepared to face the fire of criticism and to accept defeat until they become vaccinated against it. Most men who gave up would have arrived if they had kept up.—Kaufman.

THE WELL-MEANING MEDDLER

When the motor gangs agley, and the curious crowd springs from nowhere to gape and gibe, they are chary about offering suggestions other than jocular. If anybody does presume to proffer advice it is pretty sure to be one who really knows something about such mechanisms. It is unimaginable that anyone of them would undertake to tinker at the recalcitrant machinery in so far as to risk himself in its guidance.

The human machine is complex and wonderful beyond the comprehension of the average mind. The medical profession has studied it for ages and is collectively ignorant of much of its workings. Many of its functions are as yet uncomprehended. Individually, there is not a doctor in existence who, after a lifetime of study and observation, knows the mysteries of the human body so well that he can always intervene in its disorders with certainty.

Nevertheless, take that same yawping crowd that gather about the balky auto, and there is never a one—man, woman, or boy—who will not on the instant proffer and vehemently urge advice on any person who is ill or injured. We realize that it is the kindliest of impulses, the helpful instinct toward a suffering fellow creature, that prompts it, but for all that, there is something amazing in the ruthlessness with which people rush in with their advice.

Somewhere I picked up the following clever little skit, which shows that others, even of the lay press, have some realization of this absurd and perilous custom of volunteering advice:

"In Memory of I. Will, Beloved Son of Please and Wontchoo Tryit, Who Departed This Life Through the Kindly Suggestions of His Friends, July 2, 1910.

"Mr. Tryit was taken ill on Sunday with a severe cold. Sunday night, at the suggestion of his wife, he gargled his throat with antiseptic tablets.

"Monday morning he consulted a doctor, who touched his tonsils with nitrate of silver.

"Monday night he sipped hot lemonade at the suggestion of his sister.

"Tuesday morning his mother-in-law advised a gargle of salt and vinegar, which was promptly used.

"Tuesday night Mr. Tryit asked the advice of a neighbor and retired beneath a cold compress.

"Wednesday morning he arose and sipped rock-candy, flaxseed and lemon juice, prescribed for him by his niece.

"Wednesday night he took castor oil and donned a flannel nightshirt to produce sweat.

"Thursday morning he took strong ginger tea, brewed by a trained nurse who lived across the street.

"Thursday night he put on goose grease and snuffed camphor, at the instance of his grandmother.

"Friday morning his maiden aunt offered a solution of catnip and alum, which Mr. Tryit used as a gargle.

"Friday night his brother suggested golden-seal, carbolic acid and quinine.

"Saturday morning at 6:36 the end came.

"Only relatives and close friends will be present at the funeral."

I learn of an eastern bank president who has been leading a double life during the past fifteen years. He has been chawin' tobacco during all that time and his wife didn't know it.—Beach's Magazine.

OUR BUSINESS INTERESTS

There appears to be a general impression that doctors are a sort of supernal race of beings whose minds are solely occupied with the recondite problems of disease, and who never descend to the level of common humanity, or think, talk or act in the planes where move their fellow men.

In truth the doctor is very human. He has a stomach that demands supplies, t. i. d., and he appreciates a good dinner, with time to eat it and no danger of being called out before the dessert. He has bills to meet and has to worry over making both ends meet. The fact that he has daily to grapple with problems whose solution means life or death renders him all the more capable of enjoying to the limit an interval of freedom from the cares that beset him. The chance to have a day off, to eat a good meal in peace, enlivened with the talk, the jokes and the laughter of others likewise freed, the chance to rub up against his fellow doctors, air his own views and hear those of the other men, makes these meetings pleasant and profitable. Nevertheless, as the time comes round for each successive meeting, most of us have a little self-communion over the question of whether we can afford it.

This is all wrong. These meetings should be so arranged that the only question each member asks himself is, "Can I afford to miss it?" As one way to render a society meeting so valuable that no member could afford to miss it, I would suggest that one paper with discussion be devoted to that part of our duties most difficult and most essential to our success, our business interests. The present paper is presented with the hope that it may initiate the custom, and with a view of arousing plenty of edifying opposition I shall make such radical statements as you will surely oppose:

If the population of America were equally divided among the registered physicians legally entitled to treat them, each of us would have about 500 patients on our lists. But these we share with innumerable illegal practicians of so many breeds, cross-breeds and mongrel varieties, that it is impossible to list them.

Why should people leave regularly trained physicians, who have spent years in studying the human body and its ailments, successfully passed many examinations and proved their proficiency, and place their lives in the hands of persons who never had any such training, and whose readiness to undertake a case is the most convincing proof of their ignorance? Nobody does such a thing with his automobile, or the plumbing of his kitchen. Let us dissociate ourselves from the matter and consider it impersonally, as a phenomenon that has a meaning, to be traced to its cause.

It is impossible to avoid the conclusion that a large section of the public does not like us, or believe in us, but resorts to anybody, however illiterate, and anything, however absurd, sooner than apply to us for relief. Naturally, we feel that we should make ourselves more worthy, and so we increase the vigor of our entrance and graduating examinations, bring up the grade of our medical schools, and institute independent state examining boards; but instead of seeing a return of public confidence we find the gap between us and the public widening.

Is it possible that the difficulty lies in the elevation of the profession, creating a gap between us and the public? Men have always clung to those who, springing from their own ranks, remain a part of them. The demagog's strong hold on the ranks is due to this fact; he is from the ranks, knows the people, their needs, their possi-

bilities; he is one of them; while the aristocrat seems ever like the princess who, being told the people had no bread, suggested that they eat cake. The religions that spring from the people, when the comrade of today becomes the priest of tomorrow, enjoy a popularity never accorded the highly finished product of the seminary. Samuel Thomson had no education, lay or medical, and so little appreciation of what the science of medicine means that he judged of the properties of plants simply by tasting them; yet he inaugurated a movement that swept the old practice from its moorings and compelled the relinquishment of its most tried and trusted remedies.

We should beware lest the uplift of the profession result in lifting it up onto a pedestal where it stands as an ornament to be admired but of no particular use. The search for more knowledge will and must go on, but it might with advantage be directed to the study of the useful rather than to the abstract. If the public has formed the impression that we have become "too scientific" to care for the patient individually, that we are too interested in watching the course of a disease to be willing to interfere, there is unfortunately too much reason for such a belief in the utterances of high-up men in our ranks.

The statement that "there is no treatment for pneumonia" has driven thousands to our competitors. The slurs thrown on our materia medica, by men who should have known better, have been taken as the belief of the profession; and the people have taken us at our word—our remedies are worthless, and we as well. "Then ho! for the Christian scientist, the osteopath, the Weltmerist, *et id omne genus*. You acknowledge you are useless, they promise everything; we lose nothing by leaving you."

In vain we seek to retract; we did not mean it; we were only joking; we can do all and far more than the quack. The public looks over what we have to offer—"same old stuff, nasty as ever; we know all about it and have no inclination to go back to the rotten trash."

But, we can use the same things the quack employs!

"Oho! so he was right after all, and now you own up to it; and *we* were right in supporting him. Well, the man who introduced it is surely better than his imitators." Our efforts to fight quackery with its own weapons merely give the quack our endorsement. It is a surrender, not a conquest.

The true remedy is so obvious that I wonder it is not universally recognized. We must study our patient more in the sickroom, and must learn to treat him. We must use the best means of treatment and apply them more skilfully. When we come to study our patient at the bedside we occupy ground on which we are impregnable, for not one of our competitors can approach us here.

The old materia medica is doomed. Profession and public are tired of it, dissatisfied with it, will hear no good of it. But we make a mistake in letting the outsiders introduce the novelties. Novelty is the one thing above all others that recommends a therapeutic method. People continually ask what there is new, and are ever ready to give it a trial. The alkaloids have this primary advantage to the public, they are new and very attractive. The power lying in the little granule appeals to the imagination, which means much. Their small dose, absence of unpleasant taste, quickness in getting to work, and the precision with which they can be applied are decided advantages.

The use of remedies whose action is certain and unvarying leads the doctor to more careful study of his patient in order to grasp correctly the conditions against which these remedies may be directed. The fact that they are remedies for conditions rather than for diseases leads us to study the individual patient and to resolve his malady into its factors rather than hunt for a specific for the name of the disease.

The more we study the individual patient and the closer we apply treatment to his individual case, the firmer becomes his faith in us. He doesn't want erudition but help. He cares less to know that ninety percent of cases like his get well than that he himself will recover. He cares less for the interesting diagnostic features of his case than for ease from his sufferings.

Every element of success in our fight for the recovery of the public is to be found in the alkaloids and the methods made possible by their use. I would especially specify here the possibility of early and effective intervention in breaking up attacks of acute fevers. Only by striking hard and straight a knock-out blow before the malady has had time to establish itself by structural lesions can this be done. But we dare not strike thus, unless sure of where our weapon will hit and that it will do just what we wish. Uncertainty breeds timidity, and this spells ineffectiveness.

The men who only use weak, uncertain and ineffective drugs, in which they do not really believe, deny the possibility of jugulating such attacks. We who know that digitalin contracts dilated vessels, that aconitine relaxes spastic vessel-walls, that veratrine opens up vessels and eliminates, that strychnine arouses the vital forces, that atropine actively dilates the capillaries and increases capillary attraction, that gelseminine allays cerebrospinal hyperemia, irritability and pain, that berberine contracts relaxed connective tissue, and that one hundred other remedies each do exactly the things we know they can do, not sometimes or generally, but every time, we also *know* that when we see any such disorder in a patient and apply the remedy that corrects that disorder, it must and will correct it every time. And if correcting the disorder manifested is not curing the patient, it is a mighty satisfactory substitute. We need not go to the outsider for our novelty; we have an infinitely better one developed by ourselves.

Every element for popular success is to be found in this suggestion. It is a reform strictly developing within our own lines, originating and operated solely by ourselves; it is perfectly comprehensible to ourselves and to the intelligent laity; and yet there is the element of mysterious powers residing in the little bulk that appeals to the imagination. It shifts the fight against quackery to our own territory where we are safe from every sort of opposition. Moreover, its practice is so easy, because so natural, that as soon as one gets a little accustomed to the absence of the old difficulties he wonders how he went so long without realizing its advantages.

To treat the disorders one sees rather than wait for the book diagnosis may not seem very important or even desirable, but it is the dropping of an unnatural method and the restoration of the true one. Bastin, in the preface to his excellent "School Botany," says that botany is the study of plants and not a study of books about plants. That is exactly the idea—we have been studying books about disease too exclusively and disease itself too little. To practise with the active principles one is compelled to study his patient as well as his books.

It beats the deuce how the folks will weep as you lie in your coffin so fast asleep, and sing of your goodness in countless ways while the parson preaches and talks and prays. 'Tis queer how the public will eulogize and laud you up to the vaulted skies, when the undertaker has called your bluff and squirted you full of embalming stuff. But when you walked on the earth, I swear, you were nothing more than a plodder there and you'd have fainted or dropped down dead at any praise that the public said. It's only when you're a lifeless stiff that the heartless public will note to the diff.—Walt Mason.

THE PURE-FOOD LAW AND PRICES

In the midst of the universal acclaim of this movement in favor of pure food, a still, small voice begins to make itself heard, in ever increasing volume. The theme of its song is the increase in the cost of living.

What do people expect, anyhow?

You kick about having ten percent of terra alba in your wheat flour and in addition twenty percent of ground maize. But why, then, in the name of common sense, cry out against a raise of fifteen percent in the price of the article when really pure and unadulterated wheat is now supplied? You have been accustomed to spices containing eighty percent of powdered olive pits, and now find yourself charged five times the old price; yet, you are a gainer, for your pepper goes five times further, and you are saved the cost of the useless adulterant, not to mention the improved flavor.

You are now able to choose between real cocoa and that diluted with divers and sundry adulterants; and you know what these are, and are relieved of the haunting

suspicion that you are consuming bullock's blood and various other still less appetizing diluents. You can choose between mixtures of maple syrup and glucose, and pay the price for the natural sweet—if you can get it. You note that what you have been eating as currant, strawberry, raspberry or other brands of jelly are really currant—and so forth—plus the core and peel of inferior apples; and you can eat the pure unmixed jellies you supposed you were getting—provided, let us breathe it gently, your good wife will put them up in her own kitchen and has the fear of the Pure-Food Law in mind. You may be happier to know that the brand of coffee whose subtle flavor so tickled your palate owed its peculiar twang to an unsuspected admixture of chicory.

But there are other points in which the questions become complicated. Take that of ice-cream. The delicacy vended under that designation consists of a variable mixture of milk, sugar, eggs, gelatin, corn starch, arrowroot, and the flavoring. It sells for twenty-five to thirty-five cents per quart. The component elements are, presumably, pure, wholesome and unadulterated; the result is what people are used to and want—an agreeable, cold and cheap dessert. Just buy a quart of real cream at not less than forty cents, add the sugar and flavor, and freeze it, and see if you could sell it at less than sixty cents per quart and pay expenses. People will not pay that much; and if they did, it is not everybody who could digest a food as rich in fat.

Make an arbitrary ruling that ice-cream must consist solely of pure cream, sugar and flavor, and the ice-cream trade is disrupted and completely ruined. The law might with propriety compel dealers to distinguish between the ideal ice-cream and the commodity to which we have been accustomed, by designations that may be comprehended by the purchaser. We would then be able to secure "pure ice-cream" if we pay the price; or regale ourselves more plenteously at less expense with the plebeian product.

It may be questioned whether the law should compel the manufacturer to give the ingredients. Do the producers of Worcestershire sauce give the formula? Certainly not—that is a trade secret. Publish it and every *chef* in the world would supply his guests with his own make. The law has not as yet made trade secrets unlawful, the purport of the pure-food act being to prevent the substitution of inferior, cheaper or unwholesome substances for those described by the label and of good quality. In many cases we suspect it would be impossible to give the ingredients of a food that is not always the same, as India relish, no two jars of which are identical; or such concoctions as the gumbo that made New Orleans famous.

When such complications arise it is invariably the custom of those entrusted with the enforcement of a law to push it to the limits of its letter, even if injustice result, leaving to the law-maker the task of remedying such defects by amendments. It is this that makes law-making interminable and law a jungle. Should common-sense and equity be allowed to rule in exceptional cases it would be easier to assimilate new legislation, although the burden of responsibility on judge, jury and legal officials would be enormously increased. It is easier to say black is black than to decide whether black is always black.

> Fix not your heart on earthly good or gain,
> Life means but pleasure or it means but pain;
> When time lets slip a little, perfect hour
> Oh, take it—for it will not come again.
> —The Rubaiyat.

BETTER COUNSELS PREVAIL

We are glad that the counsels of overzealous leaders in the National Association of Retail Druggists who were determined to enter upon an open warfare with dispensing doctors were in large measure overruled at the last meeting of the association, held in Pittsburg in September. The resolutions proposed by *Notes*, to which such wide publicity were given and whose passage was urged with such unwise ardor, were passed in a much modified form. Instead of demanding the suppression of dispensing through legal enactment the druggist-body

simply placed itself on record as being "*opposed* to the general compounding and dispensing of medicines by physicians," called upon the medical profession to prevent, as far as practicable, "the compounding, dispensing, distribution and sale of medicines by physicians," and urged the enforcement of the medical-practice and pharmacy laws, in the interest of both professions.

On the whole the resolutions were temperate and in the main reasonable. We are firmly of the opinion, as many times stated in these columns, that the best, indeed the only, method by which the druggist can hope to secure the patronage and support of the physician is through his ability to cooperate with the latter. Just to the extent that he can demonstrate the desirability or the necessity of his services will he succeed in enlisting the interest and securing the business of the physician. He will never succeed in this by the threat of "getting the law" on the medical man, and efforts directed along these channels will inevitably result not only in failure to increase the size of his prescription file, but will intensify the old feeling of bitterness, where one exists, drive away trade, and effectually prevent the drawing together of the members of the two professions into the closer relationship which is really so desirable.

Dispensing on the part of physicians is here to stay. It is the natural response to social, economic and professional conditions which the wise man will understand, and if he is gifted with a sufficient sense of business acumen, turn to his own profit.

The lemons make nice lemonade. There is no reason why doctors and druggists should be shying this beautiful and useful fruit at one another. Now that the heat of the battle is past, we advise our good friend *Notes* (we are essentially friends after all) to settle down into a campaign of *friendship* with the doctors—yes, dispensing doctors—abandoning for all time its defamatory editorial tactics of the last few months.

We pledge our hearty cooperation in such a campaign of friendship, as based upon fair consideration of one profession for the other, without any suggestion of coercion, and with the predominant thought of giving the *patient* the best possible service—which is, of course, the thing of highest importance.

But we stand for the doctor, and attacks upon him, whether he dispenses or not, no matter what his sectarian affiliations, provided he is square, honest and intelligent, trying to do his level best, we shall resent, and when such attacks are made we are prepared to fight for his interest, and fight like ——!

What some economical (?) people keep from the doctor they give to the undertaker—and then some.—W. A. Evans.

TYPHOID FEVER IN CHICAGO

The members of the North Shore Branch of the Chicago Medical Society at its last meeting (October 7) were favored with an exceedingly interesting talk by Dr. L. L. Lumsden, who had been detailed by the Public Health and Marine Hospital Service to cooperate with the Chicago Department of Health to make an exhaustive study of the typhoid-fever situation in this city. Not that the morbidity from this disease is high here; indeed, the contrary is the case, and Chicago is probably freer from typhoid than any other important center of population in the country. But there are many questions to be answered, many problems to be cleared up, and it was thought desirable by Commissioner Evans that these should be undertaken in a thoroughly intelligent and systematic way.

We learned, for one thing, that the death-rate for typhoid fever in this city has been falling more or less steadily for the last fifty years. During the epidemic in the early '90s it reached more than 95 per 100,000. For the ten-year period preceding the opening of the drainage canal it exceeded 60 per 100,000; the next ten years it fell to an average of 23, and now it is only 12 per 100,000.

The drainage canal has removed largely the danger of transmission by drinking water; yet Dr. Lumsden showed that there is still likelihood of contamination from the communities to the north and south, which

empty their sewage into the lake. Dr. Young, of the Marine Hospital, pointed out that the excursion steamers, running into and out of the port of Chicago, deposit near the water-intakes, many days during the summer, the excreta of thousands of passengers, and neither city, state or nation has any control of the sanitary condition on these boats. Among the patients at the Marine Hospital he has had typhoid-fever patients who were members of the crews of these boats, some of them cooks, waiters, dishwashers, and others coming into contact with food.

Dr. Lumsden named as the causes at present most concerned in the transmission of typhoid fever in Chicago: the milk supply, typhoid carriers and personal contact.

Our milk supply it seems is generally good; yet it is exceedingly difficult to be sure that on some of the thousands of farms supplying this great city or among the many men engaged in the distribution of milk there are not cases of this disease. A number of small foci of milk infection were indeed discovered; all the cases in one neighborhood, for instance, being traced to the customers of a single milkman, and from this source of supply back to cases of the disease on farms. In one case a farmer selling milk for city consumption was found to be harboring two cases of typhoid fever, one of them of several weeks' standing. He belonged to a religious sect opposed to the use of medicine and these persons had been without medical attendance.

The bacillus carrier is a greater danger than is generally appreciated. Dr. Lumsden states that from 2 to 4 percent of those who recover harbor the germ, which is discharged either in the urine or stools, or both. There are also apparently healthy persons who have never had typhoid, who also are "carriers." In this connection Dr. Edwards' warning to look out for the atypical cases was pertinent. This speaker said that he had seen several cases in which there was apparently no elevation of temperature whatever, and he described another case, now under treatment, in which the febrile symptoms were inconsequential, the most prominent symptom being headache; yet the diagnosis was positively shown by blood examination and the Widal test. Lumsden believes that the "carrier" should be sought for, and when found, excluded from those occupations which bring him into contact with food. He should not be allowed to work in bakeries, meat-markets, grocery-stores, restaurants, nor in the gathering or distribution of milk.

The essayist expressed it as his belief that a large number of cases of typhoid fever in Chicago now result from direct contact. In other words, it should be considered as essentially contagious. It is remarkable how inadequate are the precautions adopted to prevent its transmission, even in the practice of able physicians, who are giving the patient good medical care. He thinks that about 4 percent of the Chicago cases are acquired in this way, which, while too high, is low as compared with Washington, where about 20 percent are secondary.

It should be emphasized that every case of this disease comes, either directly or indirectly, from some other person who has or has had the disease. It may be communicated in the early, even in the incubative, stages, and according to one authority this is most frequently the case; so the physician should be on his guard from the very beginning. Even before the diagnosis can be accurately made it can be "suspected"—and it is at this time that the campaign of prevention, meaning cleanliness, individual asepsis to the surgical degree, and perhaps hospitalized isolation, should be begun. We should add, that this is the stage for the most effective therapeutic campaign as well.

In Chicago less than 25 percent of the cases are imported, i. e., brought here from out of the city.

The discussion was of considerable interest, though nothing of very special value was added as to methods of treatment. The value of diet, and its proper selection, hydriatic methods, etc., were dilated upon at some length. More than one speaker insisted upon the importance of treating the patient rather than the disease. One

speaker took occasion to condemn the use of intestinal antiseptics as irrational, on the ground that the disease was a bacteremia from the start, and therefore beyond the reach of the therapeutic sterilizing agent, even before the diagnosis could be made. And, yet, it was significant that nearly everyone speaking noted the remarkable change in the condition of the severely toxemic patients when alimentary disturbances were corrected, by diet or otherwise. Has it not occurred to these gentlemen that the correction of alimentary toxemia is a prime factor—yes, *the* prime factor —in treatment? No condemnation of the antiseptic method was made (or could be made) upon clinical grounds, as thousands of readers of this journal are prepared to testify.

The evening was a profitable one in every way. It is plain that Chicago is to be congratulated upon having had the services of Dr. Lumsden, whose investigations here are certain to accrue to the advantage of the entire country and to humanity as a whole.

The occasional fanatics in medicine—Savonarolas in science—are needed.—W. J. Robinson.

FOUR EPOCHS OF LIFE

Of all the problem books, or to be more specific, of all the books dealing with the problem of sex and with the cure of the social evil, none has impressed us so deeply as has the one written by Dr. Hamilton-Muncie bearing the above title. (See Book Reviews.) In the form of a simple and attractive love story, the love story of a married couple, the author brings up and discusses, fearlessly but with a sweet womanliness and deep understanding of human nature, the relations of the sexes in childhood, adolescence and in adult life; the training of the children for the purpose of unfolding to them, early in their little lives, the mysteries and beautiful truths of nature. Although the story as told seems almost Utopian and we sigh regretfully when pondering the overwhelming obstacles that combat its being translated into actuality, it is withal so attractive and so simple that we cannot but wish that we might have had a "Doctor Robert" for a father and a "Doctor Ruth" for a mother.

The problem of how to inform the children, the young boys and girls, the young men and women, in questions of such vital interest but of such delicate nature appears easy enough—while reading the book; but where are we to find the teachers, the parents with the requisite knowledge and tactful wisdom and firm discerning love who shall know how and when to teach?

The author evidently believes in the regulation of procreation and of the number of children; for the heroes of the story, the doctors Robert and Ruth Lyon, live together for three years without progeny, and then the procreation of their first offspring is deliberately planned and executed. We wonder how the author imagines the marital relations of this charming couple during the first three years of their married life? Did they deliberately and entirely abstain from eating of the fruit of the tree of knowledge, as the only certain means of preventing conception, or did they use anticonceptional measures?

We do not agree with Mr. Roosevelt and Emperor William in the indiscriminate production of children. We believe that the number of children and the time of their birth should not be left to chance; though we also believe that the larger family is usually the most happy; that each little newcomer gives every other member of that family a broader and less selfish outlook upon life and a greater likelihood of real success. We also agree with the author in her contention that the advent of children should be intended and desired and that their upbringing and education should be along the lines laid down in the book, the many interesting phases and problems of which we cannot possibly discuss here. The author illustrates a most beautiful "selection of species," and traces the mental development both of parents and children in so attractive and charming a manner that we can only regret the all but unsurmountable obstacles to its ever becoming true.

The terrible facts connected with the social evil, the white-slave traffic, the far-spread distribution of venereal diseases, and other similar evils are mentioned plainly and without fear, and yet not in a manner that could give offense to any right-thinking man or woman. The author is right in her contention that the ignorance of possible evils is not a protection, but rather that only knowledge imparted in a proper manner can afford that and can form the character so as to render the dangers innocuous. The Nature Stories of Dr. Ruth are beautifully conceived and beautifully told and might well serve, not so much as a substitute for than as an extension of the fairy tales which now form the mental pabulum of children.

Speaking of fairy tales, we do not consider them wrong or untruthful. Grimm's and Anderson's tales could be made of as great importance and could well be used to unfold and illustrate the workings of nature in the same manner as do the Nature Stories. Is not the story of the sleeping princess, for instance, founded as it is upon the awakening of Brunhilde by Siegfried, based upon the mythos of the white god Balder and does not this illustrate the awakening of the ice- and winter-bound Mother Earth by the kiss of the sun-god?

We urge every physician to study this little work carefully, to loan it to the fathers and mothers of his clientèle, and especially to the young men and young women in his care; also to call the attention of teachers and lawyers to it. However desirable it is that the parents should instruct their children in the truths of nature, they must themselves first learn; and for a long time to come the duty of a teacher will devolve upon the family physician.

We consider it of particular importance that medical students and young graduates should be given the book for study, because it will be of immense assistance to them when they go out into their professional lives.

In connection with this important subject we also call the attention of our readers to a leading article by Dr. Standard, on The Crime of Sexual Ignorance, which deals with the same questions.

Don't get any false sense of security through being told that typhoid fever is "not contagious." It is communicable from person to person; every case is caused by disease germs which have come in some way—water, milk, fingers, food, flies—from the dejecta of some previous case.—William A. Evans' "Healthgrams."

THE SOCIAL SIGNIFICANCE OF ORGANIZATION

Fifty years ago, when the experiment was tried of importing English locomotives for use on American railways, they proved a failure. English roads were carefully built, leveled and ballasted, and their engines were tightly braced to run over perfect roadbeds. Our roads were hurriedly constructed to cover long distances, and with a sparse population cheap construction alone made them possible. The American locomotive was adapted to such trackage by an elasticity of construction the English machine did not possess. Now, however, our roads have been so improved as to rival the English perfection, and with this the type of our engines has been altered so that they now correspond with the British type.

Our ancestors found the conditions of life in Europe unendurable, and they crossed the world, braved the privations and perils of pioneer life, to escape from them. Society in the Old World was then organized under governments largely despotic, everywhere burdened by caste. After incredible hardships and exertion we cast off the yoke and founded our rustic commonwealth on the basis of individual freedom.

The ideal was, as little government as possible and the greatest dependence on the individual citizen's sense of rectitude. Under Jefferson this principle was systematized into a political party, where it received a general and passionate adherence the like of which has never been equaled. With a widely-scattered population, almost exclusively agricultural, the Jeffersonian democracy commended itself to the instincts of free men.

Times change. The land fills up; manufacturing becomes our predominant industry,

and the descendants of the original American settlers are engulfed by a constantly rising tide of Europeans who are accustomed to the restraints and support of a paternal government. The illimitable stretches of fertile soil, that offered a refuge to the men who wanted "elbow room," have reached their limits. The impulse remains, the land-hunger is yet there, but the outlets are closed. Individual responsibility and rectitude become sadly checkered by individual greed. The fertility of our social field has permitted the luxuriant growth of the weeds of conspiracy, monopoly and corruption. Wealth and power encroach on public and private right, and there is a constantly increasing demand for legislative protection of the masses, against them and the corruption of the legislators.

The law, revered by our grandsires to such a degree as to excite the amazement of De Tocqueville, has become the refuge of the dishonest, the arena for keen and unprincipled experts; and even the judicial bench is not above the suspicion of corporation control.

Just as these conditions increase, with the thickening population, so does the demand for organization grow. Jeffersonian democracy is dead. Capital combines. Labor combines. The combinations of various allied interests jar, as their interests clash, until they necessarily form combinations of combinations, while the organizations of workmen unite into amalgamations and federations. The transportation conspiracies are successfully held to reason and their extortion is checked only by unions of producers—and woe to the melon growers of Texas or the orange raisers of Florida if they cannot form unions of bulk to vie with the fruiterers of California. Woe to the individual who stands alone in any vocation not yet solidified in organization. He is between the upper millstone of capital and the nether millstone of labor—*he* is the grist itself.

The railway needs iron, the iron trade needs transportation, and they needs must combine. Other trades must be drawn in, n turn, and this process must go on until we have a union of trusts, a union of labor, a unification of all interests and industries. This is the tendency, and, in the opinion of many, such a universal socialization of industry is inevitable.

I am not defending this idea. It is loathsome to one in whose veins runs the blood of the pioneers, to whom the Jeffersonian principle is the dearest of ideals; but I am conscious that it is now being crystallized into a political faith, and that the end is not yet. Even now personal rights can only be secured and maintained in the ultimate by the association principle, and in modern phrase, this is socialism; which means the very antithesis of the ancient idea of independent, self-respecting, personal freedom, and moral responsibility of the individual. In other words, the Roman is conquering the Teuton, and "liberty" replaces "freedom."

The medical profession is not exempt. Its organization is as inevitable as that of the trades and other industries. Resent it as we may, we must submit to what neither we nor any other human force can prevent, for the laws of cause and effect are inexorable. There remains to each of us the duty of participating in the organization, and lending whatever influence we may possess to making it the best that such an organization may be made. There is as much room as ever for individual rectitude, for honorable example and precept—and there is more need for them than ever. In one way there is advantage, for the influence of a man for the right may be widely extended by the very organization that limits his own individual rights.

Face the music, Brethren! Banish vain regrets, and rather seek to adapt and utilize the new conditions for the general good.

I'd like to know the use of ability if you don't get right out into the thick of things and use it.—Beach's Magazine.

INFANTILE PARALYSIS

One of the interesting facts revealed by the last census is the large number of deaths which occurred during the year 1909 from acute anterior poliomyelitis, or infantile paralysis. There were 569 ascribed to this disease. This is the first time that it has

been recorded as a cause of death by the Census Bureau. A few years ago, while recognizing the danger of paralysis with permanent disability, the mortality from it was assumed by the leading textbook writers well-nigh as nothing. The record of recent years has proven this assumption to be untrue. According to Osler there was a mortality of 6 or 7 percent in the New York City epidemic of 1907–8, in which there were about 2000 cases. At the May, 1910, meeting of the American Congress of Physicians, held in Washington, a resolution was adopted in which it was stated that the disease is an infectious and communicable one, having a mortality of from 5 to 20 percent, and that 75 percent of those who survive are permanently crippled.

Infantile paralysis is epidemic in nearly all parts of the country at the present time, if we can judge correctly by numerous reports that have come to us directly and indirectly. A number of our readers have requested information and help, especially in its management. It is significant of the present epidemic that the disease is not confined to children, though, as would be expected, the largest percentage of cases occur during the earlier years of life.

Undoubtedly many readers of CLINICAL MEDICINE have had experience with acute anterior poliomyelitis. Will these brethren not enrich the "family" with records of their successes and failures? The great need is to get light on its treatment—and of course on its prevention. We shall welcome the receipt of a number of short articles upon this subject.

To greatly increase your chances of avoiding typhoid fever—swat every fly in your house.—W. A. Evans.

"SCIENCE AND HUMANITY", AND TUBERCULOSIS

Under the above caption Beverly Robinson contributes an editorial to *The New York State Journal of Medicine*, in which he discusses a matter that lies close to the heart of every lover of the medical profession, of every member striving for a high ideal.

A patient, a young man on the first rounds of that ladder that most surely leads to influence, the public press, engaged to be married, is found to be tuberculous. The doctor's duty is clear—he requires the man to lay down his work, cease all thought of matrimony, and banish himself to the country where he can live according to the rules most likely to eventuate in a cure. His life-work henceforth is to wage war against the tubercle bacilli that have effected a lodgment in his body.

The laity have become so imbued with the belief that tuberculosis is contagious that in their minds little distinction is made in this respect between it and smallpox. They can not comprehend that there is a difference, that, as Robinson correctly says, tuberculosis is only contagious to the relatively few susceptible, and then under particular circumstances. Those most susceptible may develop tuberculosis, no matter how great the precautions; those only inadequately susceptible require exceptional and prolonged exposure. Disregard of these facts leads to much unnecessary distress.

How far is the detection of tubercle bacilli in the sputa to be trusted as indicating an infection of the lung? Or as to the prognosis? Neither are absolute, according to the very latest investigations. The morphology of this organism varies, as does its reaction to chemical agents, and also its infective power as determined by inoculation of cavies.

Even leaving the bacillus out altogether, the same advice is due to the patient. But he should not be also crushed flat by an exaggerated and untrue estimate of his condition and the danger it presents to others. During his thirteen years' service among the pulmonary classes of a great city hospital Dr. Robinson knew of no case of tuberculosis developing among the assistants, often crowded for hours in rooms rarely if ever renovated or disinfected.

Dr. Robinson thinks it is not proved that cures of pulmonary tuberculosis are more frequent now than they were at that time. Even now many fatal relapses occur after sanatorium "cures." Were the funds now

devoted to supporting sanatoria employed for improving the living conditions of the poor, Dr. Robinson believes better results would be secured in the way of eradicating the disease. Very many pupils in the public schools are now tuberculous and disseminating the infection in the streets, cars, and other public places.

What he has said of tuberculosis applies alike to diphtheria, only in a different manner. Here, besides the Loeffler bacillus, there is the personal equation to be considered, the exposure, and the unknown susceptibility at a given time. To this, however, I wish to add—and that most emphatically—and the environment. The lesson of the connections, in diphtheria, between bad hygienic conditions and malignancy was burned into my mind by my experience as medical health officer—an experience I would wish every colleague could have shared.

Dr. Robinson was house-physician to a children's hospital in Paris, with a diphtheria ward. Although poorly fed, overworked, repeatedly inoculated in the course of thirty tracheotomies, he yet escaped infection. Years later, caring for a mild case, under the best conditions, he contracted the disease and narrowly escaped death from it.

Our power of avoiding or preventing contagious disease is very limited. Epidemics vary, as does individual susceptibility. We have in other infections no such resources as in smallpox and diphtheria, although the latter are by no means infallible.

The health office tells us not to fear disease transmission by fomites, or to believe pulmonary tuberculosis any more contagious than it has been, or that the bacillus is so very frightful after all. It tries to tell the victims of tuberculosis to be rational, to go live rurally for a period, eat good food, take just enough exercise, and help with the right medicines, and holds out the hope that then the malady often ends by self-limitation. In the meantime let humanity direct our advice

This fine editorial ends as follows:

"I would add one thing, and only one, and do so because of its immense importance. *Vaccination* should be absolutely obligatory. A senseless segregation and quarantine would then be unnecessary, just as the Japanese and Germans have shown—because there would be no people to take smallpox and the disease would cease to exist. 'What fools these mortals be?' "

With the latter sentiment especially I heartily coincide.

There may be such a thing as too much conscience, but there is no such thing as too much common-sense.

CHILDREN EMPLOYED AS SCAVENGERS

The Chicago Medical Recorder for August editorially calls attention to the faculty of Milwaukee's socialist mayor of saying many things in a way that are attractive to the newspapers because they are of educational value to the public. "In a recent interview with reference to keeping the streets and vacant places free from litter, he suggests rewards for children who aid to the greatest extent in removing litter from the streets."

Although *The Recorder* does not explicitly approve of Mayor Seidel's suggestion, the tone of the editorial permits us to take such an approval for granted, and we feel constrained to take issue with the idea. If Mr. Seidel "suggests rewards for children who aid to the greatest extent in removing litter from the streets," he is either not cognizant of or forgets the fact that children are, as a rule, peculiarly susceptible to the pathogenic action of virulent microorganisms which can almost invariably be found in greater or less amounts in the street dust and in the street litter.

Supposing that a child, in its anxiety to earn a promised reward, picks up all the loose paper littering the street, and some of these bits of paper have been handled, coughed and perhaps spat upon by a consumptive, who shall say that sufficient time has elapsed for the light, diffuse or even direct, to exert its germicidal power? Or supposing that one of those scraps chance to be contaminated with the virus of scarlet-fever or of diphtheria, will not the child handling that paper, stuffing it into a bag,

and then maybe wiping its heated little face with those dirty hands or solacing itself with a bit of candy while thus engaged, almost surely be infected and very probably acquire the disease?

There are still worse possibilities connected with the plan, but those mentioned may suffice. We should most emphatically object to employing children as scavengers. Let the work of the latter be done by those who have acquired a certain immunity to infectious microorganisms, either through age or through habituation from years of contact.

By working for the good of all we work for the good of ourselves. We only succeed as we work for the good of the whole.—Elbert Hubbard.

MISTAKING TYPHLOCOLITIS FOR APPENDICITIS

In *Le Monde Médical* for August appears a lecture from Professor Dieulafoy, of the Academy of Medicine in Paris, in which he discusses the relations of true appendicitis with the maladies too frequently mistaken for it.

Dieulafoy denies the tendency of typhlocolitis to end in appendicitis, and asserts further that operation for a supposed appendicitis when the patient is suffering only from mucomembranous or sandy typhlocolitis is indefensible. He nevertheless is "one of the most ardent advocates of surgical intervention in the treatment of appendicitis."

"I have," Dieulafoy says, "invoked surgical intervention in a very large number of cases of appendicitis, and the farther I go the more convinced am I that it constitutes the only effectual, rational treatment. The removal of the toxiinfective appendicular focus before it can prove fatal is a common-sense rule of conduct which is confirmed by everyday experience."

After expressing himself thus emphatically, Dieulafoy proceeds to enter his protest against operations for nonexistent appendicitis on persons suffering from typhlocolitis and the attempt to bolster up the diagnosis by histologic examinations in defiance of clinical observation. He records no less than nineteen cases in which the operation for appendicitis was done but no appendicitis found, the malady being typhlocolitis, and recurring after the operation as it had done before the same.

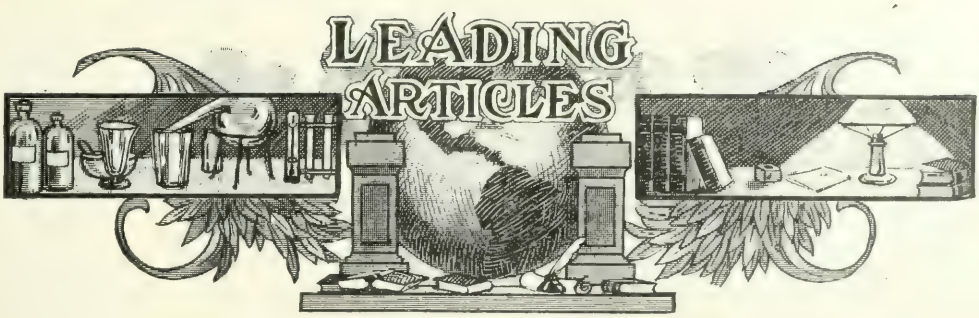
The expensive and perilous operation was done despite the fact that the diagnosis excluding appendicitis could readily have been made. The patient suffers severe abdominal pains and which are recurring, the abdomen is tender, especially over the colon, and pressure over the right iliac fossa occasions cries of pain, indicating this as the focus of the malady. If the physician is imbued with the pernicious doctrine that typhlocolitis often ends in appendicitis, he will operate, only to find himself, to his own and the patient's chagrin, contradicted by a healthy appendix.

Now comes the microscopist, who proceeds to justify the operation by discovering a "histologic appendicitis," invisible to the unaided senses and occasioning no symptoms.

Folliculitis, simple or hemorrhagic, is not appendicitis in the sense of justifying operation. Letulle has studied this intra- and extrafollicular hemorrhage of healthy amputated appendices and shown it to be due to the operation itself. Heubner, in conjunction with Noeggerath, reached the same conclusion, after a series of experiments on rabbits.

"What, then, remains of the microscopic appendicitis? Nothing at all! Anatomically it does not count, clinically it is nonexistent; yet this is the principal basis of the theory according to which an attack of appendicitis is commonly a sequel of enterocolitis."

The operation has no effect on the recurrence of the painful attacks, predominating in the right iliac fossa. Apart from certain neurasthenia cases, the mucomembranous enterocolitis pursues its course after as it did before the operation. Thirty-five cases are quoted to prove this point. Many become obsessed with the idea of appendicitis and beg for operation to relieve their apprehensions.



The Crime of Sexual Ignorance

Showing Why the Doctor Is to Blame

By D. E. STANDARD, A. M., M. D., Springfield, Missouri
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EDITORIAL NOTE.—Dr. Standard uses strong and unsparing language in his wrath at the terrible conditions and ignorance prevailing in regard to sexual questions; but we consider him in the right and commend his article to the careful study of our readers. We also refer them to an editorial, in this number, on the same question ("Four Epochs of Life"), and to the book with this title, by Dr. Hamilton-Muncie, which is discussed in the review department.

I THINK the time has come in our advancing civilization when as much stress is being laid on the ability to prevent disease as to cure; and when we come anywhere near being half way to what we should be, as scientific men and women, we shall place very much more stress and honor upon the doctor as a man, or doctors as a profession, whose ability is marked as a preventer as well as a curer of disease. It takes not the eye of a prophet to see that the modern medical science is directed toward the prevention of disease.

It ought to be a crime, and I believe it soon will be, for a physician in any locality to see or know of contagious or infectious diseases, or of cesspools or privy vaults, or any physical condition which is a breeder of disease and is unsanitary, without giving that fact the proper notoriety that would correct the disease or filth-breeder at once. It should make no difference in whose house or on whose premises the unsanitary condition exists, or in whose home the disease is found. We all know of instances where a case of some infectious or contagious disease has been secreted and treated by the physician with no effort at quarantine whatever, because the case was in the house of the town mayor or one of the city "dads," or in some home other than the ordinary.

The Curse of Gonorrheal Infection

What doctor has not known of instance upon instance of a young wife, newly wed, who took with her to the altar and bridal chamber purity, cleanliness and noble devotion, and who within a few days after marriage comes to our office with complaint of painful micturition, awful burning "just when the water starts and just when it stops, doctor," and a discharge that stains her clothing, and so on? And for centuries, we, as physicians, have been covering up the fact that her trouble lay at the door of her newly wedded husband who, though demanding chastity and purity of womanhood at her hands, brought to her the filthy gonorrheal virus from a white or may-

*Read before the Green County (Mo.) Medical Society.

be even some negro wench, or God only knows from whence, and "thought he was cured," but now brings his pollution and prostituted self and pours its poison out into the potentialities and prospects of his own posterity.

Tens of thousands of just such cases are scattered all through our social world, and few of these women—very few indeed—realize the source of their trouble, while they wonder at the fact of their not becoming pregnant again. Hundreds, yes, thousands, of those pitiable victims become unsexed, every year, by salpingitis, pyosalpinx and cystic ovaries, the direct result of gonorrheal infection, acquired from their husbands.

Stealing and pilfering from his wife in that way is as criminal and as much a theft as ever was committed by man on earth, and outraged womanhood bears it unwittingly. And we men smile as our daughters are being made infertile and denatured.

The M. D. of today is not a physician only but he is a sanitarian as well, and his mission as sanitarian is the much more important of the two because it has to do with the interests of the many, instead of the one or few. The people generally are beginning to look to our profession for the preservation of health as much as to restoration. While the physician does his duty along this line he may expect some censure and uncharitable compliments. Expected or not expected, however, they inevitably will be bestowed.

In this particular line of thought I want to direct your minds to the ignorance of the laity generally on sexual life.

The Laity Opposed to the Discussion of Sexual Questions

I am aware that the laity will, as a rule, hold up holy (?) hands in horror, and with false modesty and hypocritical blushings oft will exclaim: "Oh! you must not talk of those impure things nor think of mentioning them to our pure-minded children [though those children may be twelve or fifteen or even twenty years of age]. Why, they never even have dreamed of sexual things." Now, maybe they have not "dreamed" of such matters—yet; but they have wondered, and talked, and discussed, and experimented in secret hours of and with that part of their physical makeup and peculiar sensations; and because of misinformation and noninformation, they ofttimes are injured physically, and God alone can tell how much injury the human race has endured and suffered because of the prevailing ignorance regarding the sexual function.

If the laity in general understood as much about the sexual makeup of themselves as they do of the other parts of their physical nature, there would not be one case of clap where there are now a hundred; there would not be one case of syphilis where now there are fifty; there would be not more than one case of a young woman suffering the torments of the damned, once every three to five weeks, with her menses, where now there are twenty-five; and there would not be one deformed, congenitally smitten babe born into this world where now there are ten.

If this change were to come about, we should not have so many jobs at healing, but that great and growing and God-ordained social life would become purified and the superstitions and sufferings and sexual sins of our race would move on and out before the doctors who will sit down and carefully explain how and what is expected of a man by a woman and of woman by the man, and then instruct the fathers and mothers in the knowledge they should impart to their children concerning their sexual nature.

Sentimentalism should not have any place at all in our thoughts—never! never!! when it conflicts with the inexorable, inevitable laws of nature.

The Threefold Nature of Man

We recognize that heredity, environment and education constitute the threefold nature or being of our makeup—physical, mental and moral; while sentiment is the child of culture which ofttimes is cultureless.

First of all, we recognize that during growth and before the realization of ma-

turity every living cell is actuated by two principles which are cardinal to every cell or collection of cells, i. e., action and nutrition. Without required nutriment the organism could not live, and that nutriment is obtained by the motility of the organism sufficient for its appropriating from the surrounding medium that which is necessary for its life. Then, with maturity, we see the organism developing the third fundamental faculty and function of its being, namely, furnishing a part of itself for another separate existence. Hence reproduction.

This coexisting trio which together constitute every kind of matured organism, including man, i. e., motion, nutrition and reproduction, issues forth into the world, and through all the ages no upraised hand has stifled either of these three nor has barred the more fully developed offspring or reproduced organism in any known domain except in that class of organisms known as human beings. While everywhere the unrestricted use of these three powers has gladly been conceded to all other organisms, we find through the past centuries a ban placed upon man in this respect.

I Ask, "Why"

It is a fact that we as gladly welcome and speak with ease of the mixing of pollen in a tasseled cornfield as we do of the little sprout where the corn is "coming up;" we are at ease discussing the inadvisability of having pie-melons and watermelons or squash and citrons growing close together in the field because they will mix and spoil the breed; yet, let anything pertaining to the sexual life of a human being be said, and immediately folks will cry out "Shame, shame," to even think of such a thing.

In the name of humanity, I ask—*Why?*

Now, as a matter of fact, we know that man, with his complex organization, is incapable of reproducing his kind alone, being dependent upon a like, or rather a complementary, organic body. Thus man becomes a social creature, because the third of this trio, reproduction, cannot be realized by either male or female alone. So, then, the basic principle of society is the dependence of one upon the other for natural existence, while the function of reproduction is not absolutely necessary for the mere existence of the one individual body.

We must recognize that of the three elements, motion, nutrition and reproduction, the last is the spontaneous result of the first two, the natural result; and the perpetuation of the species is dependent upon reproduction. Thus the preservation of self through propagation, while not an absolute requisite for the maintenance of the individual life, is the greatest and supremest desire of the human being, and of all other organisms as well; and the function of reproduction is the supreme effort of the matured organism in the perpetuation of the species.

Our Adolescent Youths Improperly Instructed

Very much time and effort are spent in teaching young people how to conduct themselves in society, that they may make a good impression, and we well know how much stress and pains are manifested to bring about a desirable matrimonial union; but, pray, tell me how much instruction is given to these young men and women regarding the all-important question upon which will rest the physical well-being of future society. Why, bless you, for centuries past these couples have been led to the doors of the bridal chamber, without one iota of sensible teaching or information relative to their conduct within that sacred room.

I cry out aloud against this state of affairs, for it is criminal, utterly criminal. Think of our daughters having been left, for all these centuries, at the threshold of life's crucial period, restrained, hampered, taught to hang their head and be ashamed of the realization of what no one ever said was other than intended by our Creator.

There she stands, trembling, wondering, fearing. And, oh! how many disappointments to herself and to her husband because of the rotten, hellish beliefs and the practices thrown around us by socalled modesty but which should be called murder, and be-

cause of a sentiment which should be consigned to hell now and forever.

Medical Profession Has Been Culpable

Yet, lo, for these ages, with others, we doctors have bowed to this mock modesty and prudish blushing, and have sacrificed thousands upon thousands of what would have been happy homes in a blissful union, for ruined health and complaining companionship—all because of this criminal ignorance of sexual things. And shall I not say, the doctor is to blame, when we hold the power absolutely in our hands, to put the broad sunlight of intelligent instruction into the shade-drawn darkened window of the summertime of youth?

You know as well as I that the reason why there is practically no literature on this subject is because men have been afraid to picture the actual truth concerning the real facts of sexual life or function. Here and there has been seen an effort along this line, born of mercenary motives, or a book by someone not capable of writing on the subject, which more often have caused apprehension and uneasiness, unnecessary solicitude and misery, rather than good. I have in my library two such books I bought when a young man before studying medicine, which were written by preachers. Time and again both the laity and our profession are confronted by books that contain libel after libel and in which normal physiological conditions are described, and even pictured, as pathological.

High Time to Inform the Young

Is it not time, gentlemen, that we should be as sensible about our children and our neighbors' children as we are about corn and hogs? And though there be some hard kicking by some saintly (outwardly) folks, why should we as doctors not compel the people in every neighborhood where we live to be as sensible about their children in talking with them concerning themselves and their bodies as they are about Plymouth-rock chickens or some certain kind of popcorn?

Time upon time have women told me that they had never had a word spoken to them about their monthly period till after they had menstruated the first time, and then very little was said. I once knew a girl who when menstruating the first time at the age of fifteen and a half years, thinking that something awful must be the matter with herself, secretly washed herself with ice-cold water, the bad effects of which she will carry with her to the grave. I have known boys who at play or work would injure a testicle seriously and, because of impressions that had been fixed in their mind by teaching and environment were ashamed to speak of it to their father or mother, the lack of medical attention costing them the life of the testicle. Gentlemen, nobody can stand up and say but that tens of thousands of these and similar cases are to be found in every part of the world. And it is criminal.

We recognize that the desires of every human being are threefold, namely, those which are either physical or mental, or these two combined. Physical desires are illustrated by our longing for air, food, light, etc. Mental desires are acquired as a result of environment, education or training, such as enthusiasm, ambition, etc. Lastly, the desire or longing which is both physical and mental is the one that we call sexual.

Why Continue to Foster this Ignorance?

Now, as to the last-named, can anyone tell me why we should have definite, positive knowledge and instruction in the first two and ignore the third? Why should we teach our children relative to their own physical desire or lead them out into anticipations and purposes mentally and put a blind before their eyes and say, "Shame," if they ever manifest any desire for knowledge concerning the sensations and wonder of the desire resulting from the union of physical and mental forces. Why should we, as doctors, permit the fostering of this ignorance concerning sexual things, when the knowledge concerning the physical and mental desires and gratifications of the same have to do only with the individual concerned? But, the proper, sensible, intelligent knowledge of the organization of sexual desires has to

do with the great social life, that which, as we said before, lies at the very base of our most sacred institution, the home.

When the newborn babe opens its eyes to the things of this world all the desires it has are physical. No will-power at all governs its actions. Jacobi tells us that "for a short time after birth the conducting fibers between the undeveloped brain and pyramidal fibers of the cord perform no function." It takes the psychomotor centers at least a month to exhibit the first signs of existence. Thereafter the brain develops very rapidly but not uniformly. A little later we find developing what commonly are termed the general and special senses. Through the growing power of the nervous system we gradually come to a knowledge of the different parts and organs of our body, because of the sensations resulting from stimulation of certain centers.

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Now, in a general sense, we have the desire to evacuate the bowels and the general muscular tingling of power, or of hunger, or of tired feeling. Then the special senses are commonly classed as five.

Generally speaking, more marked promptness and ease of cerebration, or the complete cycle of thought-activity, results from force of habit, that is, from repeated exercise of certain centers along a given line. One must recognize that every sensation of necessity makes its impress upon the sensitive mind-plate and it becomes in a very large sense indelibly fixed. Hence the ordinary teaching that growing children get, as a rule, concerning their sexual organs and senses can but impress them in a manner that is unfair, dishonest, deceptive, and calculated to make them deceivers, liars, and hunters for knowledge in secret.

Gentlemen, that is criminal, if anything on earth is criminal. How many of us, as we grew up and while we were yet boys in kneepants, have not deceived our mothers and kept from them facts of our investigations in some secret place with other boys and perhaps with some girl about our own age? Do you remember some such conversation between your good mother and yourself happening these many years ago: "Johnnie, I haven't seen or heard you and Mary for a good while; where have you been?" "Oh! we've been to the barn and around." "And what have you been doing?" "Oh! we've been playing." But you did not explain just what you had been playing at. How many of you do not recall such scenes?

Who of us have not marked the peculiar expression in the face and manner of the boy as his voice begins to change and in his entire presence we see foreshadowed the coming powers of manhood. Who of

us have not noted with keen perception the change in pose and act and everything of the opening bud of the flower of fidelity as the Great Virgin puts her arms around the girl-child, beholding her changed, with developing breasts and rounding limbs? She goes forth into a new world, blushing and stumbling and wondering, conscious of new mysterious sensations that she cannot stifle—sensations and longings as natural and instinctive as the desire to eat when hungry or to slumber at the end of day—and she walks falteringly out, walks with faltering foot toward that perilous pinnacle of matured womanhood.

Pity the Man-Boy, the Woman-Girl

There they stand, the man-boy and the woman-girl, with life before them, realizing the fast-developing power of the magnet of sex as it draws them they know not how, they know not whither. And why do they not understand, why are this man and this woman to-be thus mystified? Let me tell you.

During all the centuries of the past, instead of nurturing and fostering a rational knowledge of sex, as we do in the case of the other faculties, socalled civilization, and socalled sentimentalism, and socalled morality demand its entire suppression, and everybody religiously refrains from any reference to the subject. And all this because some cachectic, bloodless, abnormal individuals have persistently cried out: "For heaven's sake, don't say anything to them about sexual matters. Don't talk about such things—it makes one feel so ashamed." And so our youth, with its vibrant virility, with its exuberant enthusiasm, with its powers and possibilities, and its ideals of purity, plunges longingly into our modern social world, into that great sea of experience, only to be stung by sin and tinged with taint, and tormented by poisons in the blood. Then, as a result of this ignorance of sexual things, our boys become the pitiable victims and the horrid dispensers of the virus of gonorrhea and of syphilis, and thousands of homes are "blessed" (or cursed) with just the one child, which, if not permeated with disease and puny, is an object to be pitied because of the hard place it may have to stand in as an only child, petted, and feasted, and humored, and ruined ofttimes in disposition and temperament.

Gonorrhea the Principal Cause of Race-Suicide

There is no longer any doubt whatever but that gonorrhea is, by all odds, the most active cause of depopulation, or socalled race-suicide; while all modern writers agree that this infection is the chief of all causes in the inflammatory diseases peculiar to woman, and surgery of the female pelvis reveals the startling fact that 90 percent of it is due to gonorrheal invasion. Hundreds and hundreds of our women have had one or both ovaries removed because of the diseased condition due to gonococci, but yet they are ignorant of the real facts.

Gentlemen, while these diseases peculiar to the sexual organs sweep curse-laden over generation after generation, reaping their hideous harvest in our homes, spreading blight and pain and sorrow, and while our surgeons are removing ovaries, by the thousands, made cystic by gonorrhea, and when blear-eyed, weazen-faced hunchbacks and distorted babes are pushed into our social world, crippled and cursed by syphilitic ancestry, we, the doctors, the conservators of human life and well-being, are doing nothing to stem the tide.

God Almighty and the angels in heaven must feel shamed at the sight, and in the name of our common humanity I declare it is high time for us, as doctors, to do our duty and drive the rank, rotten, silliness-born ignorance about things sexual from our midst.

Will we do it? Will we?

Therapeutic Properties of Verbena Hastata

A Critical Investigation into Its True Sphere of Usefulness

By J. M. FRENCH, M. D., Milford, Massachusetts

EDITORIAL NOTE.—Dr. French, a well-known contributor to "Clinical Medicine," gives here an interesting account of his careful studies, extending over a number of years, on the action of and indications for verbena hastata, which he has found to be of value in certain forms of epilepsy. The doctor's splendid investigations afford another evidence of the good work which a practitioner in active general practice can do. Some of the most important discoveries have been made by such, and Dr. French's researches should stimulate others to go and do likewise.

IT is now a little more than eight years ago that I began to use verbena hastata in my own practice, after having, for several years previous, studied its action as reported by others in medical literature. I have not employed it in a large number of cases, but I have endeavored to observe its action carefully in every instance. I have also collected all the reports which have been printed in medical books and journals that had any bearing upon the therapeutics of this drug, including some which I have been able to secure for publication from users of the drug. For the past two years I have endeavored, through the columns of several medical journals, to secure reports sufficient to constitute a collective investigation concerning the same; but, I regret to say, the number of those who have aided in this direction is but small. Nevertheless, I have collected and summarized all that I have been able to obtain in these several ways, in the hope of being able to present the most important facts which are known to the medical profession concerning this drug.

Several years ago I published a summary of what I then knew concerning verbena, which was reprinted in a number of journals In comparing this statement with my present knowledge of the subject, I realize that I have not added many points of importance to what was then stated, nor have I made many radical modifications of my opinions as to its uses. Therefore this paper, as compared with that one, will contain many repetitions, together with some unimportant modifications, besides a few slight additions. This means that whatever value this paper may have rests upon a wider study of the observations of others and some years of additional personal experience in its use, which have in the main confirmed my earlier experiences and conclusions, with slight modifications and additions.

Its Range Is Limited, Although Formerly Recommended for Many Disorders

Let me say at the outset that verbena is not a remedy of great power or wide applicability. Only in comparatively few conditions is its use now recommended. For all of the older uses we have at hand today many other and better remedies. If it shall be found worthy of a place in the materia medica of the modern and progressive physician, it must be upon the ground that it is a better remedy than any other which we possess, in certain definite conditions of disease. This I believe to be the case, even though the conditions are not the most frequently met with. The physiological action of verbena is not marked. Indeed, if we consider the physiological action of a drug to be its poisonous action, I have not found it to possess any such action in the doses in which I have employed it.

Verbena hastata belongs to the class of symptom-medicines, acting upon the healthy as well as the diseased, and manifesting its characteristic symptoms at a single dose.

Up to a very recent date we owe most of our knowledge of its properties to the eclec-

tics and other herbalists. Felter and Lloyd ("American Dispensatory") consider that it possesses tonic, emetic, expectorant, and sudorific properties. Scudder ("Specific Medication") says that it relieves irritation of the stomach and intestinal canal, and promotes digestion and secretion. Paine recommends it as producing good results in rheumatism, gout, and piles. Griffin uses it, in the form of an infusion, as a remedy in ivy poisoning. Day advocates it for the cure of intermittent and remittent fever, and also as a remedy in the treatment of the opium habit. Boericke ("Manual of Homeopathic Materia Medica") says that it affects the skin, promotes the absorption of blood, and allays pain in bruises; is useful in vesicular erysipelas, passive congestions, and intermittent fevers; is one of the remedies for poison-oak; is useful in epilepsy, insomnia, and mental exhaustion. Piffard recommends a tincture of the leaves and fresh plant for alopecia, used locally; while internally he uses it for swollen glands, and in severe headaches with sharp, ringing pains.

At the present time, however, and so far as I have any knowledge, the most of these uses are obsolete. We have many better remedies as a stomachic tonic. We do not need it in rheumatism, gout, or piles. No one now thinks of employing it in fevers, or as a cure for the opium habit. We do not often hear of its use in ivy poisoning. Only in the last clause of Boericke's statement do we get any hint of the uses for which the present writer has employed it, namely, epilepsy, insomnia, and mental exhaustion.

The Nervous System Its Only Sphere of Action

This brings us to the second point, its sphere of action. So far as I am able to judge from my own use of it or from what I have learned of its use by others, its only important sphere of action, at least so far as its value as a medicine is concerned, is the nervous system. Whatever other actions it may have are of secondary and very slight importance.

As to the nature of its action, I am somewhat in doubt whether to class it as a nerve tonic or sedative, but decide upon the former, since its predominant effects are to strengthen and improve the action of the nervous system. It builds up instead of depressing, strengthens instead of weakening. Perhaps it might be more properly classed as an antispasmodic, since it allays excitement, relieves irritability, and promotes normal action of the nervous system.

Certain Forms of Epilepsy Its Particular Field

The particular conditions of disease which verbena is found most often to relieve are found in some cases of epilepsy. I make the statement in this form, because I wish to guard against the idea that verbena is a cure for epilepsy, or even a remedy in every case of epilepsy. The most which I claim, and the main fact of which I have been convinced, is that it is of value in certain cases and conditions of epilepsy; while in other cases and conditions the reverse is true. The object of my study has been to determine, and the object of this paper is to record in so far as I have been able to determine, those cases and conditions in which it is of value, and those in which the reverse is true.

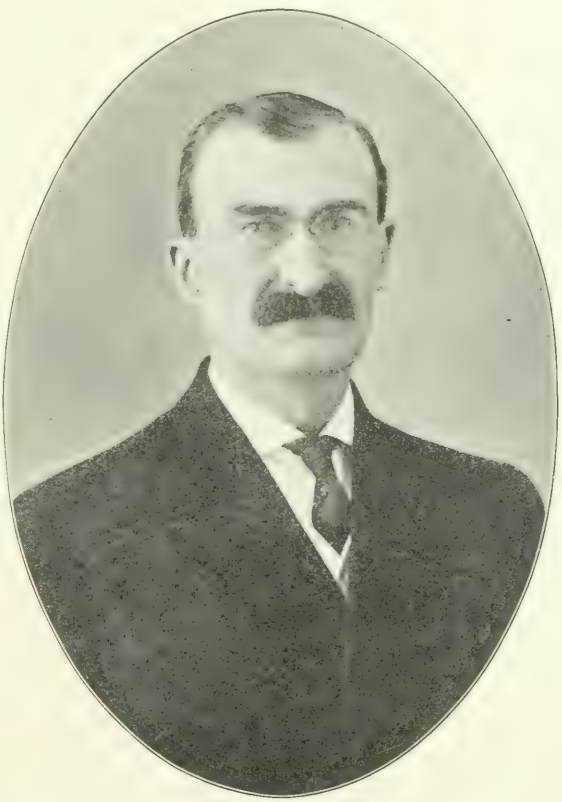
Epilepsy is a disease so serious in its nature, so intractible to the ordinary forms of treatment, and so generally given over as hopeless, that any drug or method which presents any reasonable evidence of being beneficial, even in a small proportion of cases, is entitled to careful consideration and thorough trial.

Hessel finds verbena, even in small doses, to be of benefit in those conditions generally included under the head of nervousness. In the same line I have found, in cases of epilepsy, that its first noticeable and characteristic effect is that *it brightens up the patients' mental powers and gives them a more cheerful aspect.* Thus, of one girl, soon after she began the use of verbena, her mother reported to me that she was brighter and more cheerful than she had been under the influence of the medicine she had previously been taking, which evidently contained a bromide. She was readier to speak and

quicker to answer than formerly; and whereas before she never saw anything to do to help her mother, now she found many things to do, and that without being asked.

Controls Certain Forms of Nervous Depression

This is clearly the effect of a nerve tonic, and is in marked contrast to that of bromides, which have almost always been used in these cases before verbena is tried. It indicates other and broader uses for the drug, and leads to the suggestion that verbena may be the remedy, fundamentally, not indeed for epilepsy or any other disease as a whole, but rather *for certain conditions of nervous depression*, weakness, irritation, and spasm which are found in many cases not only of epilepsy but of a considerable class of nervous diseases.



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In favorable cases verbena does not usually stop the paroxysms all at once, but rather produces a general improvement, rendering the attacks lighter and the intervals between them longer, and finally, in a certain proportion of cases, permanently preventing their recurrence.

It is claimed by some that the extract of verbena has a decidedly favorable effect upon the constipation so often found in epileptic patients, which it is said to relieve without any drastic action. Less of this action is seen when the concentration, verbenin, is employed, although this does show some slight laxative effect.

If the effect of the remedy is favorable, lessening the frequency and severity of the epileptic paroxysms and improving the general health, its administration should be *continued for an indefinite time*. No patient should be encouraged to believe that a cure has been effected—that is, a permanent cure—until at least two years have elapsed since the last manifestation of the disease.

All experience shows that it is a comparatively easy matter to check the convulsions for a period of several months, or sometimes even years, while yet the dreaded symptoms will return at a later period. Even two years is far from being a period conclusive of permanent cure. Indeed, in a large proportion of cases, and cases which are unquestionably benefited by treatment, experience will soon convince the observant physician that no period of freedom from convulsions is proof positive against their recurrence, at least in cases of long standing. Therefore, when there are occasional relapses, even though the intervals be years, *the rule should be to continue the treatment during life*. That the use of verbena hastata in this manner is without danger, is shown by a case in my own practice, where large doses have been taken almost without interruption for more than eight years, with evident benefit

and without any unpleasant results. In this instance the patient is satisfied to continue the treatment during life.

General Indications

The cases which are most likely to be benefited by verbena are of three classes:

1. The recent cases, in which the *status epilepticus* is not fully developed.

2. The comparatively mild ones, in which the convulsions do not occur with extreme frequency and are not exceptionally severe.

3. Those in which the mental faculties are not greatly impaired.

In short, they are those cases which might naturally be looked upon as curable, or at least as offering a hope of cure. In the old and severe cases, where the spasms are extremely frequent and the mind is greatly affected, and where partial relief is the most that can be hoped for, there are other remedies of greater value.

There is another indication for the use of verbena which has been of much practical help to me in selecting the cases which are likely to be benefited by it, and that is where previous experience has shown that the *bromides act unfavorably*. In some cases bromides plainly make the patient worse; in others they simply do no good; and in still others the secondary and incidental effects are decidedly unpleasant. In all of these cases I have come to look with confidence for good results from the use of verbena hastata; while on the contrary, if much benefit has been derived from the bromides, and the secondary action was not unpleasant, I have come to doubt the beneficial action of the former remedy.

It has also been said by some to be of especial value in cases of menstrual epilepsy, or epilepsy dependent upon the establishment of menstruation or of derangement of menstruation. I give this statement on the authority of several writers, but my own experience has not been sufficient in these cases to satisfy me one way or the other.

Remember that there is a small proportion of cases in which the action of verbena is evidently injurious, making the patients worse rather than better. When this fact is established, its use should be abandoned. Do not let any theoretical notions of what ought to be prevent you from stopping it at once. If, as is very apt to be the case, these are the ones that are helped by the bromides, return to them at once.

Apparent Connection with Visceral Derangement

Professor G. H. French of Carbondale, Illinois, reports, from his personal experience, that verbena is of most value in those cases of epilepsy in which the exciting cause is visceral rather than cerebral. This does not differ much in essence from what I have already said in substance, that it is most helpful where the cause can be removed, and the convulsion-center has not become hopelessly affected. A case in which the spasm is brought on by constipation or an overloaded stomach is much more hopeful than one in which it comes on merely because the convulsion-center is diseased without any apparent exciting cause.

Preparations and Dosage

The herb itself may be used in the form of a decoction or tea; but this is rarely done in these days of elegant pharmacy. It would no doubt be very difficult to induce the ordinary patient to take the remedy in the form of infusion long enough to effect a cure.

The fluid extract may be employed in doses of from 10 to 60 minims. Concerning this preparation, John Albert Burnett (*Journal of Therapeutics and Dietetics*) has this to say:

"There is one thing to be said against the use of verbena hastata, and that is its horrible taste. Most people consider it very bad to take, and so it is. I have never found a worse dose, according to my taste, than half a teaspoonful of this remedy, and I do not think I could take such a dose very often. It could be made into an extract, as other remedies are, or taken in capsules, or made into pills and used that way; or its taste could be covered to some extent by making it into a syrup, similar to the aromatic syrup of

rhubarb, or an aromatic fluid extract, like the aromatic fluid extract of cascara sagrada. One thing is sure, not many people would take the common fluid extract and continue its use very long."

On the other hand, Dr. H. D. Fair of Muncie, Indiana, in a personal letter to the writer, declares that he has secured the best results from a fluid extract made by Wm. S. Merrill & Co., of Cincinnati, which he considers much better than the concentration he gave a trial.

I judge that the solid extract is but little used, as I have seen no reports of its use and do not find it listed by any manufacturing drug firm.

The concentration, which is known as *verbenin* and is manufactured by The Abbott Alkaloidal Company of Chicago, is the form which I have used in every instance, and it has served my purpose so well that I have not sought for other preparations. It is prepared in the form of small ablets, each containing 1-3 of a grain, and representing the medicinal properties of 10 grains of the crude drug. This is not unpleasant to take and is well borne by patients for an indefinite length of time.

Should the Lloyds or Merrill prepare it in the form of the specific medicine, this can then be tried out in comparison with the other forms.

There is no absolute dose, the only object being to secure the effect. My own custom has been to begin, for adults, with one tablet of the concentration before each meal, and increase one tablet each *day* (Note: not one each *dose*) until the desired effects are secured or I have become convinced that it is not the indicated remedy. This is usually secured with a dose of four to six tablets taken before each meal; but there need be no hesitation in going beyond this limit if this appears necessary.

Summary

1. Verbena is not a remedy of the greatest power or widest applicability, but is of special value in certain definite conditions of disease which are not readily controlled by the usual medication.

2. It belongs to the class of symptom-remedies, and its most important action is that of an antispasmodic and nerve tonic.

3. It improves the condition of the nervous system, brightening up the patient's mental powers, and giving him a more cheerful aspect.

4. It is of great value in certain cases of epilepsy, while in others it is of no value whatever, and may even prove injurious.

5. In favorable cases it does not usually stop the convulsions at once, but produces a gradual improvement, rendering the attacks lighter and the intervals longer, and in some cases permanently preventing recurrences.

6 It is of most value in mild and recent cases, those in which the mental faculties are not greatly impaired, and those in which the convulsive seizures are dependent upon some cause outside the brain.

7. In my experience, I have found verbena to be favorable in proportion as the action of the bromides was unfavorable.

8. It is said to be of especial value in cases of menstrual epilepsy, and in petit-mal.

9. When the action is favorable, and yet the convulsive seizures continue to recur occasionally, its use should be continued during life.

10. The most convenient and agreeable form is the concentration, verbenin, which may be given in increasing doses up to six grains a day, or even more.

Cocaine as a Local Anesthetic

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois

EDITORIAL NOTE.—The author, who is professor of surgery in one of the medical colleges in Chicago, describes in a clear and simple manner the various modes of administration of cocaine for the purpose of local anesthesia. Our readers cannot but benefit from the experience and advice of Dr. Breakstone.

IN my surgical practice I have used cocaine almost exclusively for inducing local anesthesia and I have never had a single bad result follow, as regards constitutional symptoms. In my early experience, however, I have encountered some local bad effects, such as gangrene, hematoma, etc. These bad effects, however, I have found could be entirely remedied by finding out the cause and removing it. It can be stated now that the complications arising in operations performed with a local anesthetic are far less than those performed under general anesthesia.

How to Avoid Complications

In the first place, unpleasant results may be avoided by using a 2-percent solution made with *sterile water*, and *freshly prepared* each day before using, we do away entirely with the constitutional symptoms, such as vomiting, headache, syncope, etc.

Cocaine is a complex organic compound which easily undergoes decomposition and is also easily affected by microbes, especially in solution, and therefore, to be safe, the solution must be freshly prepared in sterile water. Further, it is also easily decomposed by heat, and therefore the solution must never be boiled or the cocaine will be chemically broken up. It must therefore be simply pasteurized (157° F.). It must never be brought to a heat of more than 180° F. If kept in a cool, dark place, the solution may be kept for a week, but never longer than ten days in a room of ordinary temperature.

There is a preparation, codrenin, which has this advantage over cocaine that it may be kept for months without decomposition. It is a mixture of cocaine, chloretone, suprarenal extract and normal salt solution, and it may be that for the general practitioner it might be well to use this solution, although for myself I prefer to know just what I am using and so have the solution made as I need it.

Secondly, if we *pay strict attention to asepsis*, we shall do away entirely with the local complications, such as infection, gangrene, etc. The percentage of cases of infection following operations performed with cocaine anesthesia is far less than those performed under a general anesthetic, for the reason that there are not the gastrointestinal, respiratory or urinary disturbances which so very frequently follow the use of a general anesthetic, and thus lower the vitality of the patient. Therefore, wounds produced by operations performed under cocaine anesthesia heal more kindly and more rapidly than wounds produced by operations under a general anesthetic, because the general system does not suffer and all the traumatism is purely local.

Third, because cocaine is so readily decomposed and infected, it should *never be used in an infected area.* I prefer ethyl chloride for superficial abscesses and the like, but if cocaine is used, it should be used outside of the infected area, and *if the infection is a chancroidal* one (streptobacillus of Ducrey), then the cocaine should be injected quite a distance away.

Fourth, *to prevent the absorption of the cocaine* solution, an Esmarch constrictor (in the shape of an ordinary rubber band) should be used whenever possible, and when the operation is completed, before applying the dressings, the wound should be made to bleed freely, so that as much of the cocaine solution as possible may exude with the blood, thus lessening the chances for subsequent edema, and also to wash away any

infected material that might by chance have been introduced into the wound.

Schleich's solution, which is cocaine plus morphine and sodium chloride, was devised with the idea of minimizing the constitutional symptoms occasionally following the absorption of large quantities of cocaine. I have used both Schleich's solution and a 2-percent solution of cocaine, and I do not find that Schleich's solution possesses any advantages. Of course, formerly, when stronger and less aseptic solutions of cocaine were used, Schleich's solution did have its advantages, but now that we practice asepsis, not only as to the solution but with regard to the preparation of the field of operation and the instruments, dressings and the surgeon's hands, the results obtained by the use of a 2-percent solution of cocaine for local anesthesia are perfectly satisfactory.

Ill Effects from General Anesthesia

Many bad results have been attributed to cocaine merely for the reason that they occurred after employing it. No attempt has been made to explain these bad results in any other way, especially by surgeons who operate mostly in hospitals, but if carefully analyzed, it will be found that the untoward effects following the use of cocaine in those cases were merely incidental. There is no more reason to have ill results follow operations performed under a local anesthetic than to have ill effects follow operations under a general anesthetic. Indeed, I will repeat that the percentage of ill results following operations performed under a local anesthesia is far less than the ill results following operations performed under a general anesthetic.

The preparation which I use is cocaine hydrochloride. I have tried eucaine and betaeucaine with no better result, and, I think, with less anesthesia than solutions of cocaine hydrochloride itself produced; and wherever I speak of cocaine, in this book, I mean cocaine hydrochloride.

The Modus Operandi

The solution should be injected, as a rule, along the line of proposed incision, so far as possible. In infected areas, however, it should be injected around the area of infection. If the infection is virulent, such as a chancroid, etc., the cocaine should be injected very far from the infected area. In some cases, such as in circumcision, ingrown toe-nail, etc., the injection is introduced around the base of the member or growth. The method of introducing the solution for these particular operations will be fully described in their appropriate places.

The injection may be made absolutely painless by first spraying the point of the first entrance of the hypodermic needle with ethyl chloride. After the air is expelled from the hypodermic syringe, the needle should be introduced right beneath the epidermis as far along the proposed line of incision as possible, then the solution should be gradually expelled from the syringe into the skin, as the needle is being withdrawn. An area of edema, also known as wheals, results from this injection. To introduce the next injection, the needle should be introduced at the forward end of this wheal so that it may enter an already anesthetized area.

There should be as many injections introduced as are necessary to anesthetize completely the line of proposed incision; that is to say, that the entire line of the proposed incision (except in the special cases to which I have referred above) shall be an area of edema. If deeper areas are to be anesthetized, it can be done after the incision is made. Then the cocaine can be applied with an applicator saturated with the solution as the dissection is made more deeply.

The operation should not begin for at least fifteen minutes after the injection is completed, and it is better to wait twenty or even thirty minutes. I usually prepare the patient and make the injection, then, while waiting for the cocaine to take effect, I prepare instruments and dressings so as to lose no time. The anesthetic effect usually lasts from twenty-five minutes to an hour and a half, and in some cases, especially in areas where an Esmarch bandage can be used, it may last for several hours.

However, if the operation is to be a prolonged one, more cocaine may be injected as needed. The quantity used does not matter very much. I have used as much as one ounce of the solution in a single operation without any ill effect resulting. Usually 1 or 2 drams of the 2-percent solution are sufficient, while very seldom more than 3 drams are necessary.

Some Special Advice

All during the operation it is advisable to keep up a conversation with the patient so as to detract his mind from what is being done, as nervous patients are continually anticipating ill results, owing to the fact that they have heard and read so much about these things. However, a sound, reasonable patient will have the operation performed without a word, and will leave the table and go home as if nothing had happened. Still, in a few cases, after the operation is over, they may have some pain, and for these patients bromides are indicated for the first twelve hours following the operation.

Local anesthesia may be used in any patient regardless of the condition of the heart, lungs or kidneys, and may be used at any age. In children it may be used at such an early age as the patient is able to be under control and will not fear the introduction of the hypodermic needle. As a rule it is preferred to have one of the child's relatives, in whom the child has perfect confidence, to take charge of him, so that the child may be under full mental control. At one of my clinics at the Jenner Medical College I circumcised, under local anesthesia, a child three and one-half years of age without the least trouble.

The Nez Percés Indians

By CHARLES STUART MOODY, M. D., Sandpoint, Idaho

EDITORIAL NOTE.—This is a further paper by Dr. Moody on his interesting experience among the Nez Percés Indians. In it the Doctor describes in vivid language how he found the medal which, many years ago, had been given by Captain Lewis to the Indians in token of amity and friendship.

II. FINDING THE MEDAL

IN the preceding chapter I mentioned old Hale's speaking, at various times, of a medal given the Nez Percés by Captain Lewis when he made the treaty with them on the island where the exploration party first camped. This medal was so esteemed by those Indians and was held by them in such veneration that it really became an integral part of their association with the white people. It constituted the link which bound the past with the present.

The Medal a Token of Friendship

That bit of molded metal was presented to the Indians as a token of amity, a symbol of friendship between the two races. Captain Lewis told the chief to whom he presented it that it should be a talisman for the protection of his people and any white man who saw it would be glad to clasp in brotherly love the hand of the Indian holding it, even as were clasped the two hands shown on the medal. This was only partly true; it was true insofar as the citizens of the United States were concerned, but not for the subjects of Great Britain with whom the Indians afterward came in contact in the persons of the Hudson Bay trappers who entered the country early in the last century.

The token was accepted and preserved by them, however, and made use of in the spirit in which it was given, and no doubt it did, many times, subserve the purpose intended. Twisted-Hair gave the Lewis peace-medal to his son, and he in turn passed it down to his posterity. Then, for several years, it was lost sight of. No one seemed to know

what had become of it. There were many Indians who knew, as I afterward learned, but they were loth to reveal its location. For many years I tried to get track of it in vain.

Medal Became a Sacred Totem

Finally I came to the conclusion that it had been laid away among the treasures of some of the leading families as a sort of "*wy-ya-kim*," or totem, and as in time it had grown sacred, they would and could not speak of it. It may be stated here that it is a tenet of their religion, as I shall have occasion later to explain, not to talk about anything that is sacred in character, as, for instance, their "wy-ya-kim" (that is, the totem, or sacred badge, usually an animal or a bird) adopted as their guardian spirit.

Old Hale would talk about the medal, but every time I asked him where it was he would become uncommunicative and reply, "*Wato imchesa*" (I do not know). I was convinced that he did know, but wild horses would not drag the information from him unless he chose to reveal it.

When we first came among the Indians, I met an intelligent half-blood, and between us there soon sprang up a lasting friendship. This man acted as my interpreter until I had acquired a working knowledge of the language. One day, after I had been among them for several years, I said to him:

The First Clue

"Charley, there is in existence among your people, somewhere, a medal given to them by Lewis and Clark. That medal has outlived its period of usefulness to your people but is of inestimable value to the whites. You either know where it is or can find out. I want it. Of course I know it would never do to ask the old men for it; they would not understand. But with you it is different; you will understand how it is. Now, if you know where it is, tell me. If you do not know, find out."

"I do not know," was his reply. "Seltish wore it when I was small, but I have not seen it since Seltish died."

"When did he die?"

"That was many years ago. He lived with Natskin, and he was buried in Natskin's orchard when he died."

I could scarcely conceal my elation. Inadvertently Charley had revealed the secret the Indians had kept so closely all those years. Or did he take that means of telling me? I have sometimes thought so.

Not long after the above conversation I took occasion to visit the tepee of my friend

Nez Percés type. Note manner of wearing hair

Natskin and while there walked through his orchard. Sure enough, near one corner of the same, but annoyingly near to the log house and tepee in which the family lived, lay a lowly mound beneath which slumbered one of the departed chiefs of the people, and I had no doubt that on his breast reposed the intrinsically worthless piece of metal, but which, could I but lay hands upon it, would be, to me, beyond price.

To give you an idea of the naturally secretive disposition of the Indian, I will recount a conversation held with Natskin that day. We were walking in the orchard and I had been telling him something of how to rid his apple trees of insect-pests. Gradually I steered him around to where the grave lay. Now, he could have had no means of

Grass tepee, now very rare

knowing that I even suspected the presence of the medal in that grave, or much less that I had covetous thoughts about the same, yet when I asked him, "Natskin, whose grave is that?" he replied, "*Pas ke nox pinmix*" (one who is asleep).

That was all. I knew him well enough to know that he did not care to continue the conversation, and should I insist upon it his answers would all be equally evasive. For some perfectly satisfactory Indian reason he did not care to disclose the identity of the occupant of that grave.

Difficulty of Securing the Prize

A stranger, not familiar with conditions, would naturally suppose that knowing for almost a certainty that the coveted article was in the grave, the recovery of it would be an easy matter. But such an assumption on the part of the stranger would argue, among other things, that he did not know the vociferous qualities of the average Indian canine. These dogs, direct descendants of the coyote, are possessed of the most strident and penetrating voices of any domestic animals of my acquaintance. They howl in season and out of season, day and night, without let-up. One cannot approach an Indian encampment without being assailed by hundreds of them in chorus. To approach

A young Nez Percés chief. The flag he is holding was given his grandfather by early explorers

that grave with resurrectional designs on the slumbering chief were to court prompt discovery and consequent enmity of every Indian on the reservation. No, some other plan must be thought out.

It took several years for the proper psychological moment to arrive. I bided my time with as stoical patience as might any Indian himself. Hundreds of times I passed the

corner of the orchard and looked longingly at that grass-covered mound. Never could I catch the family and the dogs all away at the same time.

Some philosopher has said, "All things come to him who waits." I waited. One spring Natskin announced that he and his were going that summer to visit with their cousins, the Flatheads. I question whether there was a person on that reservation who greeted that announcement with the same elation that I did, and it was with great interest that I assisted my worthy aboriginal friend in getting ready for his pilgrimage to the land of the Flatheads. Spring passed and summer came, but still the Natskin family tarried beneath their own vine and fig tree. But they were only waiting to attend the Fourth of July festivities at Lapwai, after which they could begin their trip. So, when on the 6th of July the Indians came stringing back from their celebration Natskin made ready for his departure.

The Resurrectional Expedition

As the rearmost dog of the departing procession of men, women, children and dogs faded from sight around the point of the hill above the tepee, one might have detected a lanky individual armed with a brand-new shovel and a grain sack on his back legging it up the trail in the direction of the deserted cabin. That lanky individual bore a striking resemblance to photographs of Dr. Charles Stuart Moody, and I strongly suspect there was some solid excuse for the similitude.

In fifteen minutes I was on the spot desecrating the grave. The earth was soft and it required only a few minutes to reach the last resting place of the old chief. It may seem singular to persons unacquainted with the preservative qualities of the dry earth of the West when I state that the body, when exposed, was in as nearly perfect condition (although it had lain there twenty years) as when it was first deposited in the grave. It was swathed in heavy blankets which it required some effort to remove.

Finding the Coveted Medal

My search was rewarded by finding the medal, suspended by a buckskin thong, resting upon the breast of the body just above his totem. To sever the thong, secure the medal and shovel the earth back upon the body was but the task of a few minutes and I was on my way hastening down to the river to wash my treasure.

Family in front of tepee

The medal was of some white composition metal about four inches in diameter. Upon one side was a vignette of President Jefferson, surrounded by the inscription, "Thos. Jefferson, President of the United States, 1803." Upon the reverse side two clasped hands, an Indian's and a white man's, surmounted by a peace-pipe and a tomahawk, with the legend, "For Peace and Friendship."

A typical summer Indian (Nez Percés) encampment

I am not given to visions and dreams, but as I held that bit of metal a scene of the past swept o'er me. I saw an island in a wide river, with Indian tepees scattered over it; I saw the red men clustered about a few whites listening to the words that fell from the lips of one of them; I heard the eager tokens of assent as the savages grasped the full import of the speech; I saw their dark faces light up with pleasure as the white man unfolded bright cloths, a braided coat, gaudy trinkets and things dear to the savage heart, and present them to the leading men; I saw the proud chief of the entwined locks stoop his head and receive from the white man a talismanic bit of coinage; I heard him promise fealty and friendship to the Great Father whose face appeared on the medal; I saw the strangers depart on their way to the western ocean.

Time ran on and the chief grew old, his steps moved haltingly toward the Land Beyond; I saw him call his son to his bedside and transfer the token to him; I heard him tell how it had been obtained and what it was to signify; I saw the son wear it all through the period of border settlement; and I saw it sink to sleep with him when he, too, joined the shades. These people no longer had need of that talisman, for by now there was no further need for its protective influence. Their tribe was broken up and dispersed, and the children of the men who gave the medal had broken faith with their red allies—they had taken the Indian's land, and it was mete that the token should hide its face in very shame. And so it was hid, no longer to offend their eyes. There ended the dream.

History of a Second Nez Perces Medal

It may be of interest to trace the history of another medal presented to the Nez Percés by the explorers.

Upon the return journey the Clark and Lewis party reached Colter's (now Potlatch) River on May 5, 1806. There they fell in with an under-chief who, from a peculiarity in the alæ of his nose, was named Cutnose. This dignitary impressed the travelers with the fact that he was "big medicine" and as much entitled to consideration as was Twisted-Hair; which, by the way, was a fact, for neither of them were chiefs in the full sense.

Captain Lewis was anxious to propitiate the Nez Percés in every way possible. He saw that should emigration ever pour into the country it would be over the same trail traveled by the expedition. The Nez Percés, holding possession of the western approach to the country, could make things decidedly unpleasant for the settlers should they so choose. Therefore, when he of the slit nasal appendage urged his claims to consideration, the Captain did not feel inclined to argue the matter. The supposed chief was given a medal, but of a smaller mintage than that given to Twisted-Hair. It was of copper but bore practically the same inscription.

Cutnose wore it throughout his life and it was buried with him.

In 1896, while the Northern Pacific was building up the Kooskia region, headquarters were established at the confluence of Potlatch with the Kooskia River. This was where the Indian chief, Cutnose, had lived in former times, and his body lay upon the hillside overlooking the stream. One day J. W. Hunsinger, chief clerk to Superintendent Gibson, was strolling along the brow of the hill and happened to see a rusty bayonet protruding from the rocks. Mr. Hunsinger, obtaining a shovel, unearthed a skeleton packed round with antiquated munitions of war and the chase. There were rusty guns, bayonets, powder flasks, bullet molds, the iron work from saddles and a great variety of trinkets, but more important than all these in the find was that small copper medal that had belonged to Cutnose. It was another link in the chain of history of that important event over one hundred years ago.

Quinine Hydroferrocyanide in Hemoptysis

Also, Other Conditions in Which It Is Useful

By ALBERT SALIVAS, M. D.
Translated by W. T. Thackeray, M. D., Chicago

[In the August, 1905, number of this journal attention was called to a much neglected but valuable remedy in the treatment of malaria, namely, the hydroferrocyanide of quinine.

The chemical formula of this preparation is $C_{20}H_{24}N_2O_2\ (CN)_6\ Fe_2H_4 + 3H_2O$, whence it may be regarded as a compound of hydrocyanide of quinine and cyanide of iron.

It is an admitted fact that quinine hydroferrocyanide acts favorably in a markedly smaller dose than the other salts of quinine, in addition to which its limited solubility renders it less objectionable to the taste while in no wise interfering with its medicinal value, the stomachic menstrua of selection being amply able to prepare it for ultimate absorption.

Its remedial value has been proven beyond peradventure, by European physicians, in many cases, notably in tertian and quotidian fevers and in double quartan, the clinical observations having been published by Dr. Van Renterghem and others. In addition to this, it has been demonstrated that hydroferrocyanide of quinine is particularly useful in the recurrent forms of neuralgia; in the first stages of phthisis as a hemostatic, and also as a calmative of the attending cough.

These observations, in addition to the known antiperiodic properties of quinine hydroferrocyanide, should lead to more extended experimentation, not only along the lines already noted, but in new fields where an obscure symptomology is complicated with fever in any manner periodic or recurrent.

In looking over the literature on the hydroferrocyanide we find that the ferrocyanide of iron has been used in periodic fevers as far back as 1824, and it is more than probable that it was this fact that led up to the manufacture and use of the combination salt.

For the benefit of our readers we append, the first of two articles by Dr. Salivas of France (translated by Dr. Thackeray, from *La Revue Dosimetrique*), on the employment of quinine hydroferrocyanide in phthisis and its attendant ills and trust that this agitation of the subject will lead our friends to make further experiments with the drug and report their findings for the benefit of all concerned.—Ed.]

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HYDROFERROCYANIDE of quinine is a salt composed of hydrocyanide of quinine and cyanide of iron. It is practically unnoticed in official medicine; nevertheless, on the other hand, it

plays a relatively important role in dosimetric practice.

Testimony of Burggraeve, Laura, and Others

Burggraeve says: "The hydroferrocyanide of quinine is an excellent compound, inasmuch as the combination of the iron and the hydrocyanic acid augments the action of the quinine to a very marked degree, so that it is not necessary to administer as large doses as of the other salts of quinine. It is an error to suppose that the hydroferrocyanide of quinine does the work of the quinine only. This salt differs from all the others, medicinally as well as chemically."

Dr. Laura states that the hydroferrocyanide of quinine is a good antiperiodic, while at the same time it is a sedative and antidyscrasic, and is indicated in intermittent fevers—above all, when there is a marked diminution of the red corpuscles and when complicated by anemia.

Hydroferrocyanide of quinine exercises also, as described by Laura, an accented sedative action, principally upon the cardioarterial circulation.

The salt has rendered very great service in the hands of Dr. Van Renterghem, (1) as an antirecurrent in intermittent fevers and in recurrent neuralgias; (2) as a defervescent during the febrile stages of various diseases; (3) as a sedative to the cough of pertussis and in the first stage of pulmonary consumption; (4) as a general tonic and reconstituent of the blood.

Dr. Lannois demonstrated to the International Congress of Alkaloidotherapy, in 1900, the advantages to be gained by the use of quinine hydroferrocyanide in the rebellious hemoptysis of tuberculosis. He described a man under his observation, aged 40 years and in the third stage of pulmonary tuberculosis, with spitting of blood, which had resisted treatment for eight days, but which was rapidly arrested by the administration of three centigrams of the hydroferrocyanide of quinine given every hour. This particular case of Dr. Lannois' is explained, very probably, by the modifying influence, as described by Laura, which the hydroferrocyanide of quinine exercises upon the cardioarterial circulation.

The many diseased conditions to which the hydroferrocyanide of quinine is applicable suggests to the physician a more careful study of this chemical. There are, first, those mentioned by Dr. Van Renterghem and concerning the sedative action of quinine hydroferrocyanide in the first stage of pulmonary phthisis; then the note by Dr. Lannois and his description of its hemostatic action in the case of persistent hemoptisis.

A Concrete Example

About two months ago I had a patient suffering from spitting of blood, more or less abundant, persisting during three weeks, and against which all treatment had failed: ergotin, hamamelis, tannin, rhatany, ferric chloride, injections of morphine, dry-cupping, sinapisms, ice, and absolute repose had been tried without obtaining relief.

I had, at that time, occasion to see our excellent coworker, Dr. Toussaint, to whom I described my perplexity. In reply, he referred me to the paper of Dr. Lannois. This paper I had, but which, I frankly confess, had been forgotten. I then had recourse to the hydroferrocyanide of quinine (3 or 4 centigrams every hour) and I noted with pleasure, in about six hours, the complete disappearance of the bloody sputum which caused me so much worry.

Since then I have used the hydroferrocyanide of quinine in combating hemoptysis in four other patients, and each time I followed the counsel given by Dr. Lannois, with success.

In all of these cases I have succeeded when all other ordinary means have failed. I believe, therefore, that I am rendering a service to my dosimetric coworkers in calling to their attention the suggestion made at our Congress of 1900 and warning them not to forget it as I myself had done.

Noting the success which I obtained from the employment of quinine hydroferrocyanide in hemoptysis, I conceived the idea of utilizing this drug in combating the evening fever of tuberculosis. I have not yet used

it, and I do not know that it will prove any more effective than the other salts of quinine, consequently I shall accompany it with the dosimetric trinity.

Its Sedative Action in the Cough of Tuberculosis

It depends upon my experience whether or not my idea will be proven to be of value in this particular, but it has incontestibly a calming effect upon the cough. The clinical observations that I have made absolutely justify the claims of Dr. Van Renterghem upon this point. One of the most striking examples that I have seen is that of a young girl of eight years, both lungs badly diseased but especially the right one, difficult and incessant cough, slightly relieved by codeine and which almost disappeared in a day when I added the hydroferrocyanide of quinine to the codeine.

Therefore there can be no question as to its value as an antihemoptysic or to its positive action as a sedative of the cough of phthisis, and in addition, it has the advantage of being both a tonic and a reconstituent of the blood. We understand, therefore, the opportunities which it offers in the treatment of pulmonary tuberculosis.

I have seen but few reports by dosimetrists upon the employment of this drug in this disease. This is regrettable, and it would be desirable to have recourse to it more frequently in combating an affection against which we have so little to depend upon.

I have proven the great value of this agent in my own hands and offer it to my coworkers, trusting that they will profit from it. I am fully convinced that it will render good service in a number of conditions, while at the same time they will be relieved from serious embarrassment.

Hydroferrocyanide of quinine is, above all, capable of controlling hemoptysis where other remedies fail, a fact which should never be forgotten.

Some Obstetric Disasters

A Record of Some Personal Experiences

By B. L. EASTMAN, M. D., Kansas City, Missouri

Surgeon and Gynecologist to the Missouri Hospital for Women; Former Assistant in the Laudau Hospital for Women, Berlin; Former Professor of Gynecology in the University Medical College, Kansas City

I AM moved to write this little story of some obstetric mishaps by the recollection that whenever I meet a few doctor friends in general practice, the conversation always drifts to a talk on obstetrics. And whether these cases from private practice, so informally discussed, involve a scandal, a tragedy or a joke, they are ever interesting and always instructive.

As an interne in a great Chicago hospital, I had a very good obstetric service, but in private practice, as a young doctor, I had less than I felt entitled to. My country patrons gave me their surgery willingly, but passed me by to call the older man in practice for their obstetrics. At the time it hurt me sadly, but I feel now that perhaps they were wiser than I thought. My later hospital and private work in gynecology, however, have made up for it in a way, for this brings with it consultation work of which a great deal has been in operative obstetrics. So what was missed in normal obstetrics is made up for in the field of obstetric pathology and obstetric surgery. But I am free to confess that what little I do know of practical obstetrics has been gleaned from talking with men in general practice rather than from books.

Hence these cases are put in print in the hope that someone who has had a like experience may be made to feel that he is not

the only one who meets misfortune. Possibly also this paper may stimulate others to similar reports of unusual cases.

Eclampsia Following Normal Labor

This case, like the others mentioned, was a consultation-case, and while I had to bear a share of the blame, I got off lightly in comparison with the family doctor who was in direct charge.

The patient was a woman of twenty-five, married several years, and desirous of having a baby. When she finally became pregnant, the old ladies in the neighborhood "encouraged" her by relating numerous incidents from their ripe experience where women who had failed to conceive early in married life had had severe labors, "instruments used," fits, blood poisoning, milk-leg, fever, and various other mishaps. By the seventh month, in fact, the old ladies' council had decided far and near that it was to be a bad case, and so the patient, her family and her husband were in a panic.

The family doctor, a man of mature years and who had known and treated the patient from childhood, raged when he heard this gossip and went out of his way to hunt up the chief croakers and figuratively took their hides off. To counteract this croaking, he went to the other extreme of optimism, and thereby laid himself open to the stunning blow awaiting him.

The end of the pregnancy came, everything apparently was normal, and the good doctor was called out from town. It was a cold winter day, and for a minute or two after reaching the house he stood at the stove and talked to the old women who were in attendance. They assured him that everything was all right so far, the patient had had a few pains, and so forth, and was sleeping. This news didn't cheer him as they thought it would, and one look at the patient's face a moment later told him something was wrong, so turning back the covers he found the baby in the bed between the mother's knees and cyanosed! There wasn't much time for talk, but what he said to those amateur nurses was short and to the point!

Before he could tie the cord and expel the placenta, the patient went into a clonic convulsion. And she had twelve of them in the next four hours.

I saw the woman in consultation with my friend about that time, and while she grew a little better for a short while, the convulsions recurred in spite of chloroform, veratrum, chloral and bromide, and she died twelve hours after the first convulsion without regaining consciousness.

Happening early in my practice, this case impressed me powerfully with the great responsibility that the obstetrician shoulders when he goes into any case, no matter how simple and normal it seems to be in the start. Here was a catastrophe that came like a bolt from the clear sky, without warning, and with no possibility of preventing it or preparing for it.

All the skilled obstetricians in the country could not have saved that woman, and the family doctor alone, unused to such desperate cases, and too honest to dissemble, had to bear the brunt of the fight and take the odium of defeat. The old ladies revenged themselves plentifully on him, and the memory of this case stayed with him all his life.

Prolapse and Inversion Following Second Stage of Labor

This case was in the hands of a man who had had much obstetric experience, but who was not a very active student of medicine. He called me hastily one night to help him, saying that he had a bad "hemorrhage" to deal with.

Arriving there, I found the woman had been delivered a short time before of a living child and a severe hemorrhage had immediately begun. The woman was barely conscious, cold, pulseless and blanched to the color of white marble. The bed and surroundings were flooded with blood, and altogether the picture was as ghastly as could well be imagined.

Between the woman's thighs lay the inverted and prolapsed uterus, with the placenta still attached to the fundus. The uterus was about eight inches long, tapering

gradually to its vaginal attachment, but without any ring. It was, in fact, completely inside out. The hemorrhage had ceased because all the blood that the heart could pump through the vessels supplying the uterus had already been lost.

I hastily peeled the placenta off the uterus, pushed the latter back into the vagina, and then reinverted it. Following this replacement, hot antiseptic irrigation of the uterine cavity was begun, but quickly discontinued, because the organ had no contractility. The cervix was then seized with a tenaculum, pulled down to the vulva and the cavity packed with cotton twisted into a rope. External heat was applied, and the patient given strychnine and whisky hypodermically, but she died within a few minutes, just as we were beginning intravenous transfusion.

I have many times thought of this case, and wondered whether anything more could have been done, but have never been able to answer the question satisfactorily to myself.

In looking up the statistics afterward, I found that while partial inversion of the uterus had frequently been observed, this particular combination of total prolapse and complete inversion was one of the rarest accidents in obstetrics. Hirst reported that there was no case in the records of 250,000 labors in the Munich Maternity Hospital. In the Dublin Rotunda one case had been observed in 100,000 labors.

With these facts in mind, knowing that such a case is almost surely fatal, and knowing further that only a handful of men in the world have ever seen or ever will see such an accident, what can be said of the doctor whose fate it is to have this ghastly thing happen suddenly and unexpectedly to his patient? He certainly is entitled to the sympathy of his professional brothers; but this is of little comfort to him as compared to the discredit which the laity heap upon him for such an unfortunate outcome of the process normally supposed to be simple and without great danger to the mother.

Puerperal Septicemia Cured by Irrigation

This patient was nineteen years old, a primipara, delivered of an illegitimate child at full term, in January of this year. The labor was normal throughout, the child was of average size, and everything was normal except a small tear in the perineum, which was immediately sutured by the obstetrician. At the time of her delivery the woman had a temperature of 100 degrees, but this was attributed to indigestion and nothing further was thought of it until the fourth day, when the temperature suddenly went to 104° F., and the pulse to 110. On the fifth day the temperature was 105 degrees and the pulse 120.

I saw her at this time, in consultation with her doctor, and found her quiet, conscious, but slightly dazed. The skin was hot and dry, the cheeks were flushed, tongue was coated, and red at the edges. The abdomen was soft and flaccid, and not sensitive, with no indication of peritonitis. Temperature was 105° F., and the pulse had risen to 130 and was small and wavy. The uterus was partly subinvoluted, and there was a slight vaginal discharge, practically without odor. She had twice been lightly curetted by the obstetrician, but nothing had been found, and the only result had been to send the pulse and temperature still higher.

The outlook for this patient was decidedly bad, for she was evidently in the midst of a very grave lymphatic septicemia, secondary to a puerperal infection. Under these circumstances we considered three plans of treatment, namely:

The first was the expectant plan of depending on tonics, stimulants and forced feeding; a plan which has the sanction of some of the best authorities in operative obstetrics.

The second plan was a radical operation, which meant the removal of the uterus by the vagina.

The third plan was to consider the uterus an abscess cavity, extensively and virulently infected, needing irrigation and drainage as the chief indication. This plan seemed to have more logic than the first and less danger than the second, and with very little discussion we adopted it forthwith.

Accordingly, two soft-rubber catheters were passed into the uterus through the

cervix, one small, for the inflow, and the other a No. 26 French, fenestrated, for the outflow, These were left long and secured in place by a suture through each one and the corresponding lip of the cervix.

The irrigating apparatus consisted of a fountain-syringe hung just above the level of the patient's body and connected to the smaller catheter, with such regulation that the fluid came out in drops. The bag was filled with a 1 : 500 formalin solution at a temperature of 110° F., and was kept full of this. Drainage from the outflow tube was made into a bucket at the foot of the bed by means of a Kelly pad, rubber sheets and the raising of the head of the bed.

This irrigation was kept up continuously day and night, for nine days. Along with it were given enemas of whisky, and saline solution by the drop-method, during the first day.

During the first four days her condition remained stationary, and at one time she was thought to be dying. After the fifth day her condition improved gradually, but the high temperature and fast pulse did not go down until the eighth day.

The tubes were removed on the ninth day, when it was found that the solution, or the water, or the pressure of the tubes had caused considerable necrosis in the vagina; but this healed readily and without any bad results. The patient made an otherwise slow recovery, and was confined to bed for about four weeks in all.

This was the fourth case I have seen of acute puerperal lymphatic septicemia, the others dying in from seven to twenty days.

Whether this woman's life was saved exclusively by the uterine irrigation or whether she would have gotten well under the expectant treatment cannot, of course, be positively decided. But I shall always believe that the irrigation and drainage used in this case fulfilled the surgical indications and were the direct means of saving her from a quick and certain death. The more I view this case, the more satisfied I am with the treatment, and the more I am convinced that we translated the conditions promptly and met the indications exactly.

The infected uterus in this case, and in all such cases, was only a large abscess-cavity, and the important idea was to secure free drainage out of the body and to remove in the easiest and safest way the poisonous bacterial toxins by the only adequate method, that of irrigation. That this plan would work in all cases might be saying too much, but its ease, simplicity and safety so recommend it that I shall certainly use it hereafter for every one of these unfortunate patients that I may encounter.

"Explosive" Pelvic Laceration in a Forceps Delivery, Due to Incomplete Anesthesia

This was also a patient of the doctor who had charge of the preceding case. The two experiences piled up on him almost in succession and gave him great distaste for obstetrics, although a careful review of both failed to show any negligence of any sort on his part.

The patient was a young primipara, unusually nervous, who bore the pains of the first and second stage with very little fortitude. The labor was a little tedious and so on account of her clamor the doctor applied low forceps after the head came down to the perineum. She was at all times hard to control, nor did the nurse have her completely under chloroform at any stage.

As a result, when the occiput began to distend the vaginal outlet, the patient woke suddenly and in a frenzy combined all her strength in one desperate effort—before the forceps could be removed or the head held back, the head, forceps and shoulders were shot through in one motion. The rest of the child was delivered immediately, and the placenta followed. After it came a rush of blood which the nurse described as being the size of a man's wrist. There was no time for hemostasis or irrigation, so the vagina was speedily packed with cotton and a firm pad and a tight bandage applied to arrest, by pressure, the tremendous bleeding which had started.

I saw the woman with her doctor two hours later, and we put her under ether at once,

without making any preliminary examination. As soon as she was asleep, I removed the packing and after getting rid of the clots and loose blood by irrigation I decided that I had encountered the worst pelvic laceration in my experience to date.

The cervix was split transversely on both sides to and into the broad ligaments, exposing the uterine artery on one side, and the lips hung down, in a loose gaping fold, like the opening of an old-fashioned tobacco-sack.

The vagina presented a very unique appearance, and the anatomy was so distorted that it was difficult to replace the various loose-hanging shreds, fragments and flaps in such a way as to restore the caliber of the pelvic outlet.

First, the posterior vaginal wall was split in the middle line from the cervix down, to and through the perineum. These flaps of vaginal mucosa were torn loose from the rectum behind, from top to bottom, for one inch on either side, showing the paler wall of the rectum through the entire distance. Second, at the vaginal orifice a tear ran on each side upward and outward for an inch, leaving the lower part of the vagina dissected loose from the perineal body. Third, the perineum itself, including the rectovaginal septum, was split in the middle line from top to bottom, and ragged and contused. Fourth, the front of the rectum was laid bare on each side for at least three inches, and the lower inch of its anterior wall was split in a line with the tear through the perineum and the posterior vaginal wall. Fifth, the sphincter ani was torn through a little to one side of the tear in the rectum, leaving a half inch of its longer end sticking up as a little stump. Sixth, the anus was torn loose in its whole anterior semicircumference. In addition to the major lacerations mentioned, there were several short tears in the lateral and anterior vaginal walls.

The pelvic outlet looked for all the world as though it had been the seat of an explosion, and the problem of restoring anything like normal anatomy or function to such a mass of wreckage was a puzzling one.

To test a man's patience and ingenuity still further, the patient's physical and financial circumstances were such that removal to a hospital was impossible. So we had to go ahead with the repair subject to the handicaps of private-house surgery, including a coal-oil lamp for illumination, the kitchen table, with the servant girl for second assistant. This latter individual collapsed and had to be dragged out just after we had gotten nicely under way.

The operation was as tedious as any I have ever undertaken. Without going into details, it consisted in a repair of the cervix; suture of the rectal wall; reunion of the divided ends of the sphincter; reuniting the submucous tissues of the vagina and perineal body with buried sutures; and, finally, an almost endless course of suturing the vaginal mucosa itself.

After the operation the patient was almost in collapse from the unavoidable oozing during the operation and the tedious operation itself, requiring more than an hour for its completion, all this added to the primary hemorrhage.

In spite of the hemorrhage and unfavorable surroundings, however, the woman made a very good recovery and with a surprisingly good plastic result. The action of the sphincter was restored and the caliber of the vaginal canal made nearly normal; with also a fairly good perineum. Some of the deeper sutures gave way during the first ten days and a small rectovaginal fistula resulted, which, however, closed spontaneously within a month.

This is a fair sample of the type of accidents that can befall any man in general practice, taking obstetrical cases as they come, and he is sure of being forced to work with insufficient help. Under profound anesthesia in the second stage this expulsive blast might not have occurred, and the result in this way might have been prevented; but what man in general practice is usually allowed to have help that he often feels is needed in these cases.

The family, as a rule, are too apt to feel that, if they employ a doctor for the delivery, and enlist some old lady to help with the

housework, they have done their Christian duty, and perhaps a little more. The doctor's feelings, when he gets caught in a case like this, would hardly do to expose in polite society.

General Reflections

Consultation work in gynecology and obstetrics gives me an ever increasing respect for the man who faces the problems in obstetrics, and it teaches me more and more, with each passing year, that obstetric work in general practice is not only underpaid, but undervalued as well, both by the laity and the profession itself.

It is true that the average obstetric case will go on to normal labor and through a normal lying-in period, but there are many, very many, which do not do so; and when an obstetric case is bad, it is like the little girl who had a little curl, for it is very, *very* bad.

The internist meets failures, and the surgeon has his share of poor results, but both can safeguard themselves and always be ready for a dignified retreat. But when a labor-case in private practice goes bad, it is simply bad all over, and no explanation ever satisfies the family. Obstetric disasters come like a bolt from a clear sky, without warning, without hope of prevention, and only too often without chance of salvation.

The men who are doing obstetrics in general practice are facing dangers which they cannot see, and often meeting disasters which human ingenuity cannot conquer; they work generally with untrained help, in unfavorable surroundings, and always with a suspicious and hypercritical audience. These men break their rest at night, their nerves are rawed by the night-long clamor of the patients, and they face the ever present danger of some accident or incident which may hold them back for years, or even ruin reputation itself.

They deserve, both in pay and public respect, a dozen times what they receive, and the indifferent surgeon or the blasé minor specialist who refer to obstetric work as "granny doctoring" are as far from the real truth as their petty intellects can ever wander.

So here's good luck, good fortune, and better appreciation for the men who are assisting humanity in its passage under that great (pubic) archway of human life; may all their cases be easy, their mishaps few, and the fees large and frequent!

A Case of Cesarean Section

With the Delivery of a Living Child

By CLARENCE W. McELHANEY, M. D., Greenville, Pennsylvania

THE following case of cesarean section is of considerable interest from the standpoint of the method of anesthesia as well as the history of the patient.

Mrs. H., now twenty-eight years old, was born in South Wales, removing to this country with her parents at the age of nine. In her infancy she was very healthy and strong, and walked before she was nine months old. Her mother states that, when she was about ten months of age, after she had been playing in the yard with the other children one day, she was brought into the house unable to move her left leg. There was no history of her falling or injuring her leg in any way. The child did not complain of anything or seem to suffer in the least, neither did she complain when they moved the leg, but she was unable to move it herself. There was no illness at this time and with the exception of the paralysis she was in perfect health. She never after walked again without help, and always used crutches from early childhood.

They took the child to a number of doctors, but not one seemed to know what the trouble was, and no treatment seemed to benefit her. The left side of the pelvis and

leg did not develop well, and the leg is now about three inches shorter and much smaller in circumference than the right one. Feeling in it is perfect, but she has no power to move it. The right side of the pelvis and the right leg developed normally in size. She never had any sickness in her life except typhoid fever at the age of fourteen. Began to menstruate at thirteen, and aside from the deformity has always been a healthy, robust girl.

The Condition at the Time of Pregnancy

At the time of her marriage she was, with the exception of the left side of the pelvis and leg, an unusually well-developed young woman. When she became pregnant she consulted several physicians as to the advisability of having an abortion produced, for her family felt that on account of the deformity she could not bear a living child. All of the physicians who examined her agreed that the deformity of the pelvis was so great that it would be impossible for her to be delivered of a living child. The left innominate bone is so little developed that the inlet to the pelvis is reduced in size to less than two inches anteroposteriorly, and the transverse diameter to about three inches. Dr. S. M. Zeigler of Greenville, Pa., with whom I was associated in the case and to whom I am indebted for permission to report the same, advised her to wait until full term and have a cesarean section performed. She accepted his advice and placed herself under his care with that end in view. Calculations fixed the termination of pregnancy at about December 25, 1907, and on December 18 she went to the Greenville Hospital for operation the following day.

The woman was very carefully prepared for laparotomy the evening of the 18th and she rested well during the night. On the morning of the 19th, at 7:30 o'clock, she received a hypodermic injection of morphine, gr. 1-4; hyoscine, gr. 1-100, and cactin, gr. 1-67. This dose was repeated at 8:30 a. m. and the patient taken to the operating room at 9 in a semiconscious condition. A few whiffs of chloroform rendered anesthesia complete and the operation, which was performed by Drs. S. M. Zeigler, C. W. McElhany and J. H. Martin, proceeded with.

The Operative Procedure

The abdomen was opened by a median incision extending from two inches above the umbilicus to the pubes. The uterus was delivered outside of the abdomen and

The patient and her child

the incision clamped together by a small double tenaculum. Hot towels were packed around the cervix and over the abdominal incision to prevent possible contamination from the contents of the uterus. The writer grasped the cervix and broad ligaments with both hands, controlling the circulation, while Dr. Zeigler made a median incision through the anterior wall of the uterus. The membranes were ruptured and the child delivered by grasping the legs and lifting it out into a towel held by a nurse; the cord was clamped and cut, and a squalling child relieved our apprehensions in that direction. The hemorrhage was

moderate from the cut in the uterine wall, but this ceased almost entirely when the placenta was removed and uterine contractions, which were very firm, took place.

We had previously decided, upon the solicitation of the family, to remove the uterus, for the danger of infection seemed less from removal than when attempting to save it. Also, we did not think our patient should again be subjected to the dangers of a possible pregnancy. At this point manual compression was replaced by a piece of rubber tubing bound tightly around the cervix, which controlled all hemorrhage. We then tied off the broad ligaments, separated the bladder from the anterior wall of the uterus and amputated the same at the level of the internal os, doing a typical Porro operation.

The patient required no chloroform during the greater part of the operation. While making the abdominal incision, tying the broad ligaments and dissecting the bladder were about the only times she required any until it came to closing the incision. The entire amount used during the operation was about four drams, and Dr. Martin, who gave the anesthetic, states that he never had a patient take it more easily and smoothly, and require so little for such an extensive operation.

The Postoperative Condition

The patient left the operating table with a pulse of one hundred and in very good condition. She regained consciousness at 1 o'clock p. m.; did not suffer any pain and slept at intervals during the afternoon. At 9 p. m., however, she was suffering so much pain that the nurse gave her 1-4 grain morphine hypodermically, and this was repeated once during the night. On the 20th she was quite comfortable, with a pulse of 90, and temperature 98.8° F. She vomited at 9 p. m., and at intervals during the night. For several days she had what we considered to be a paralytic ileus, vomiting at intervals a green fluid, abdomen being quite distended, bowels inactive, pulse accelerated and temperature slightly raised. By using calomel in divided doses, magnesium sulphate, and glycerin enemata, besides eserine salicylate and strychnine hypodermically, peristalsis was reestablished and she went on to a good convalescence. A stitch-abscess in the upper part of the incision gave her a good deal of discomfort, but she left the hospital, at the end of five weeks, in good condition.

Today she weighs 145 pounds, does all of her housework and seems to be perfectly well, and has as sturdy and healthy a boy as can be found anywhere. We were particularly pleased with the action of the anesthetic used, hyoscine, morphine and cactin supplemented by chloroform, and believe we should use the same method in another similar case.

What produced the paralysis in the left leg we are unable to say, but believe it must have been some lesion in the lower spinal cord which caused a lack of development of the left side of the pelvis and leg. Have been unable to find any similar case recorded and only offer this explanation of the paralysis for lack of a better one.

BE true to your work and to yourself. If you have a conviction, and are conscientious in the belief that you are right, be true to your professions. If you are a rebel, be a rebel out and out, and don't be a goat to leap nimbly back and forth over the fence. Never apologize for either your faith or your profession, unless you have reason to be ashamed of it; and, if you are ashamed of it, renounce it and get one that will need no apology. —Dr. George F. Butler, in "Treasures of Truth."

The Treatment of Typhoid Fever

A Method of Handling this Disease with Antipyretics, Blood Antiseptics and Intestinal Antiseptics

By M. E. JOHNSON, M. D., Pittsburg, Kansas

EACH of the three measures named in the superscription seem to me to be of equal importance and I should hardly think of trying to manage a case without all of them. How I could dispense with any one of them without detriment to my patient I do not know, and which one could best be dispensed with is difficult for me to tell, for I have such gratifying results with the combination that I use them all at once, and first, last and all the time; and the fever almost always entirely disappears in fourteen days if not less, nor have I had a second case in any family at any time. This has been my practice and experience for years. All my typhoid patients get well, and very few will have fever up to the twenty-first day.

How I Do It and What I Do It With

First clean out the bowels thoroughly with good large doses of calomel followed with a saline laxative. See that this is thorough; it may take two or three days. As soon as the alimentary tract is thoroughly cleaned out, commence with some good intestinal antiseptic. I use Abbott's, and I give this every four hours, in from 5- to 10-grain doses, as the case may require, but give it continuously, day and night; nor have I ever found the stomach to be offended thereby.

For a blood antiseptic I use echthol and echinacea in combination, a dose every four hours, in connection with the sulphocarbolates. This treatment is continued without interruption from beginning to end of the attack.

For keeping the fever down I use acetanilid and sodium salicylate combined. I give it in small doses, but of sufficient size and frequency to keep the temperature below 102° F., never allowing the fever to remain long above this point at any time. This measure is also carried out as long as there is any return of fever.

Strychnine, 1-100 of a grain, and Abbott's nuclein are given about once every six hours after the first five or six days. In some cases the strychnine may have to be given in larger doses, but I seldom find it so. If necessary, it is preferable to give this dose oftener than six hours rather than larger doses. In the later stages I like castor oil and oil of turpentine better than the laxative salines for moving the bowels.

Where there is any restlessness or lack of sleep, passiflora incarnata (Lloyd's) is given in doses large enough to produce nervous calm and sleep, which it will do, and the sleep is natural at that. This drug is decidedly preferable to codeine or other opium product. For pain in the stomach, if this should come on, codeine is the thing to give.

Bathe the patient enough to keep him clean, but never with cold water, this not being required when the other remedies are rightly used. Never give sweet milk or lemonade. Never allow iced water, but give all the *cool* pure water you can make the patient take.

If the foregoing plan is rightly carried out, all cases will be mild ones; many will be cut short. In most cases the fever will not return after the fourteenth day, and in the very few where it does run longer the patients will not be very sick and will be able to get out of bed and walk to the table by about the twenty-first day. I almost feel like kicking myself for some mistakes I have made before I knew better.

Never fear a relapse, because there is nothing to bring it about. The bacilli remaining are so few and so weakened and the resisting power of the patient is so well preserved that they can not do much harm.

Now, if you should desire to see what will happen, just stop all treatment on the tenth or twelfth day and fill your patient full of sweet milk, then see his bowels bloat up like a drum and all manner of bad things happen. It will take about a week or so to get back to where you left off. This I know, for I just tried it on one of my patients, to see what would happen. So I know for sure what will result.

Amputation in Lesions of the Hand

When and How to Amputate

By RALPH ST. J. PERRY, M. D., Farmington, Minnesota

EDITORIAL NOTE:—In this month's paper Dr. Perry gives some very valuable advice on when to amputate and when not to do so. He very properly condemns the furor operativus in cases where conservative would be far better surgery. His advice is sound, and his directions in cases where amputation becomes necessary are based on personal experience and study.

THE temptation to amputate is one of the greatest dangers menacing the general public, particularly that portion depending upon manual labor for its sustenance. To the surgeon amputation offers the easiest and quickest way of getting certain cases off their hands; especially those where the patients are unwilling or unable to pay for a prolonged course of reparative treatment and who do not as a rule appreciate the surgeon's efforts to save the mutilated parts and secure the most serviceable result possible.

Strange as it may seem, most persons will pay more for having a hand cut off than they will for having it saved. The public admires the man who amputates; the educated classes think him skilled in his art; the young women adore him for his "courage;" the small boy regards him with awe; and even the victim of the amputation delights in displaying his crippled hand with glowing details of his accident, operation and recovery. Every stump is a walking advertisement of the surgeon's business as long as the possessor lives in the village. The unthinking, improvident workman looks not to the future, but sees only the present with its loss of time and wages, its accumulating expenses, and an unforeseen doctor's bill to pay; he wants to get back to work as soon as possible and considers neither the present sacrifice nor its remote effects.

Don't Amputate Rashly

And yet, in spite of the saving of labor and the ethical publicity, my advice regarding amputations in injuries to the hand is, *Don't.*

The many hours spent in cleansing and dressing purulent hands, in touching them up here and straightening a little there, in encouraging poor granulations at one spot and curbing the exuberant at another, will all bring their reward in the self-satisfaction over a case well handled and the beneficial results secured; possibly in years to come your patient will appreciate your efforts. Remember, too, that in surgical practice honors and glory are most evanescent, that those who laud today may damn tomorrow; so be not led astray, but let your best efforts be to save rather than to sacrifice.

Give Nature a Chance

In most cases of injuries where amputation seems indicated it is best to restore carefully the relations of the injured parts, apply a vulnerary and antiseptic dressing, with a snug but not tight bandaging to a fixed support, and give nature a chance. My experience has been that in the vast majority of cases

the parts will heal to such an extent as to render amputation unnecessary or to reduce the amount of tissue requiring amputation to a minimum surprising to the uninitiated.

Nevertheless there are cases where amputation is required, in some immediately, in others after the probationary period demonstrated its necessity. In all amputations about the hand, whether immediate or delayed, for injury or disease, *the following rules should be observed:*

1. Secure as useful a result as possible.
2. Save all tissue possible.
3. Secure as cosmetic a result as possible.

Strive to Secure Best-Possible Useful Results

It quite frequently happens that it is absolutely necessary to sacrifice healthy tissues to secure a useful result, as where the surgeon is confronted with the proposition of cutting away healthy bone in order to secure a soft-tissue covering for a stump. Occasionally a short, stubby stump of a finger is an interference with the best use of the rest of the hand and should be avoided by making a metacarpal amputation. Again, the bones may have been destroyed, leaving masses of the soft parts attached to the remaining fragments. The retention and replacement of all this soft tissue is apt to result in a long, flabby, fleshy stump lacking that firmness essential to a finger-end, and which, therefore, is a detriment to usefulness. Cosmetic effects are secondary to usefulness and only call for serious consideration in cases where the injured does not perform any form of manual labor. However, no surgeon is justified in neglecting any factor which would add to the pleasing effect of the result or which, if unattended to, would add to its unsightliness.

In deciding upon an amputation, consider the patient's vocation and station in society, the future usefulness of the injured hand and the possibilities of prosthetic measures in overcoming the disability. Many a troublesome and useless finger-stump has been transformed into a valuable member of the digital group by means of a simple prosthetic appliance.

DR. RALPH ST. J. PERRY

Save as Much Tissue as You Can

The rule to save all tissues possible requires that we discard all "book amputations," all prearranged methods for mutilating the hand, and adapt our operations to the tissues at command. Emergency amputations of the hand follow no set rules and ignore all typical operations, and the surgeon who would succeed in this work must judge each individual case upon its merits and produce the best results possible with the materials at hand, always bearing

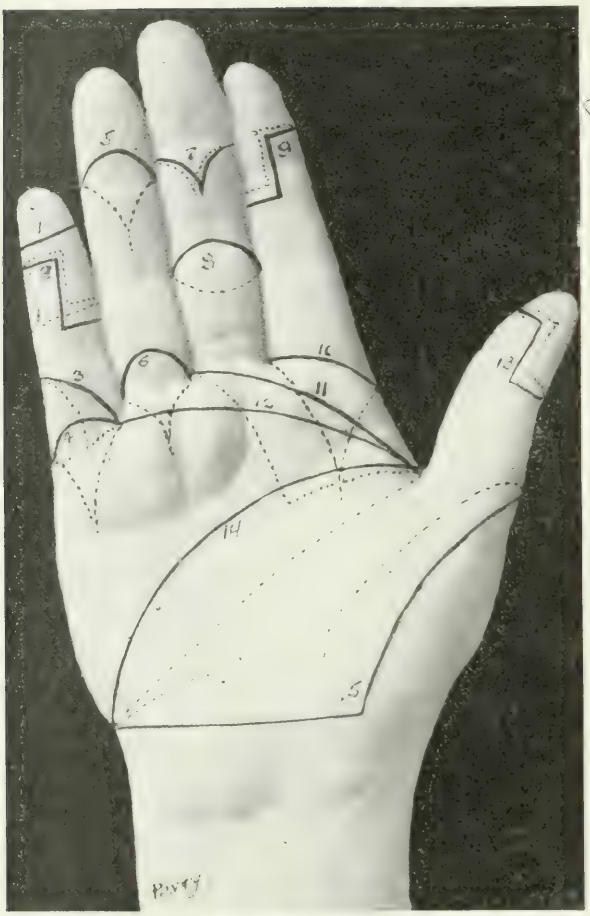


Fig. 1. Showing the lines of the palmar incisions in the several amputations concerning the hand, so arranged that the cicatrix will come on the dorsal surface. Dotted lines show dorsal lines of incision

in mind *that one essential* of usefulness. Experience in this work has led to the formulation of a few rules or principles which if carried out are most helpful in effecting satisfactory results.

Never amputate, under any circumstances, if the circulation be good in the injured parts; no matter how badly the bone may be comminuted or how severely the soft parts are torn and lacerated, do not amputate if the blood supply be sufficient to maintain vitality. When tissues die, cut them away, but only dead portions; new granulations will fill in their place.

In covering the ends of stumps the flap should invariably be of tissues from the

Fig. 2

Fig. 4

pa!mar side. (Fig. 1.) This brings the cicatrix on the dorsal aspect where it is free from the irritation and trauma incidental to the use of the hand. So imperative is this rule that it is justifiable to sacrifice any reasonable amount of tissue necessary to secure the tissues required for a large-enough palmar flap. A palmar cicatrix invariably leads to trouble sooner or later if in the hand of a manual laborer.

A stump which is insufficiently covered becomes painful, tender and ulcerated when put to use, with possibly an adherent scar and limited movement of the parts. Every stump should have, if possible, as much covering as has the normal finger-tip.

Where the cosmetic effect only is to be considered, a dorsal flap may be tolerated if a more sightly stump can be secured thereby.

In making the flaps, the parts should not

Fig. 3

Fig. 5

Fig. 6

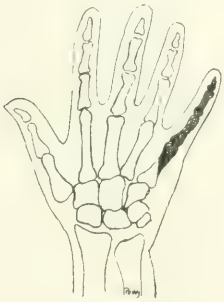


Fig. 8

Fig. 10

Fig. 12

be transfixed but the flap should be cut from without inward.

Finger Amputations

In all finger amputations the ends of the tendons should be sutured together over the end of the bone. If only one tendon be present, the other being torn away, its end should be sutured to the periosteum. This suturing affords an attachment for the tendons, preserves the function of their muscles, helps in forming a cushion tip, and prevents them from pulling upon the stump and thus causing pain, tenderness, ulceration and disability.

In finger *amputations at a joint* trim away the cartilaginous joint surface and cut off the prominences or knobs on the palmar side of the phalangeal heads.

In cases where only *the terminal phalanx* is involved and a small part of the nail remains, it is best to remove this remaining portion and dissect away all of the mutilated matrix lest, after healing, a ragged, irregular or deformed nail growth disfigure the finger and possibly increase the disability.

Where the *second or third phalanges* only are injured, the rule is to save all possible. Some surgeons advise against leaving less than half a phalanx, claiming that such a short portion becomes permanently flexed.

My experience does not agree with this; I invariably leave all possible of these phalanges and rarely have seen a permanently flexed stump. The tendons are cared for as described above; the action of one balances that of the other and they are equalized. Even a permanently flexed stump of a second or third phalanx is not a great hindrance and possesses some utility; I have never known a working man who would consent to the amputation of such a finger.

In cases involving *the first phalanx* save as much as possible of the middle finger; but of the index-, ring- and little fingers it is useless to save *less* than half of this phalanx, as such a short stump comes back of the interdigital cleft and has no grasping utility.

Where the entire first phalanx must be sacrificed in the index-, ring- or little-fingers,

Fig. 7

Fig. 9

Fig. 11

Fig. 13

Fig. 14

Fig. 16

Fig. 18

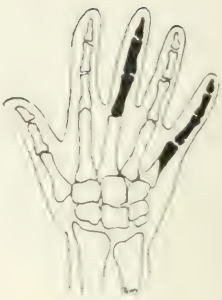


Fig. 20

it is best to remove with oblique section a distal portion of the corresponding metacarpal bone.

Where the middle finger alone is hurt, the metacarpal bone is not to be disturbed, as it forms the median support and mainstay of the hands; its removal causes the index-finger to fall away from the thumb, weakens the hand and compromises its usefulness.

Disposition of the Metacarpal Bones

The disposition of the metacarpal bones in these cases is a matter of dispute among surgeons, but my own experience and observation has resulted in at present following the practice as outlined below, in cases where the first phalanx must be removed, and which has produced the most satisfactory results as to utility, strength and cosmetic appearance.

1. Index-finger: Remove by oblique section the distal half of the corresponding metacarpal bone. (Figs. 2 and 3.)

2. Middle finger: Do not remove any portion of its metacarpal bone. (Figs. 4 and 5.)

3. Ring-finger: Remove the distal two-thirds of its metacarpal bone. (Figs. 6 and 7.)

4. Little finger: Remove the distal half of its metacarpal bone. (Figs. 8 and 9.)

5. Index- and middle fingers: Remove the distal two-thirds of the index- and the distal one-third of middle-finger metacarpal bones. (Figs. 10 and 11.)

6. Index- and ring-fingers: Remove the distal half of the index- and the distal two-thirds of the ring-finger metacarpal bones. (Figs. 12 and 13.)

7. Index- and little fingers: Remove the distal half of each corresponding metacarpal bone. (Figs. 14 and 15.)

8. Middle and ring-fingers: In workmen handling tools, where the width of the grip is valuable, do not remove any portion of either of the metacarpals except the knobs on the palmar sides of the heads and the cartilage from the exposed articular faces. (Figs. 16 and 17.) In other cases, where a more cosmetic result may be desirable, remove the distal two-thirds of the ring-finger metacarpal, but do not disturb the

Fig. 15

Fig. 17

Fig. 19

Fig. 21

middle-finger metacarpal bone. (Figs. 18 and 19.)

9. Middle and little fingers: Remove the distal half of the little-finger metacarpal bone, but none of the middle-finger meta carpal bone. (Figs. 20 and 21.)

10. Ring- and little fingers: Remove the distal two-thirds of the little-finger metacarpal bone and the distal one-third of the ring-finger metacarpal bone. (Figs. 22 and 23.) [These and subsequent cuts to appear next month, with the balance of the article.—Ed.]

11. Index-, middle and ring-fingers: Remove the distal two-thirds of the index metacarpal, the distal and half of the middle-finger metacarpal, and the distal one-third of the ring-finger metacarpal bones. (Figs. 24 and 25, and 24 *a*, 25 *a*.)

12. Index-, middle and little fingers: Remove the distal two-thirds of the index metacarpal, distal half of the middle-finger metacarpal, and the distal two-thirds of the little-finger metacarpal bones. (Figs. 26 and 27, and 26 *a*, 27 *a*.)

13. Index-, ring- and little fingers: Remove the distal two-thirds of the index- and little-finger metacarpal, and the distal one-third of the ring-finger metacarpal bones. (Figs. 28 and 29, and 28 *a*, 29 *a*.)

14. Middle, ring- and little fingers: Remove the distal two-thirds of the little-finger metacarpal, the distal half of the ring-finger metacarpal, and the distal one-third of the middle-finger metacarpal bones. (Figs. 30 and 31, and 30 *a*, 31 *a*.)

15. Index-, middle,- ring- and little fingers: Do not remove any portion of any of the metacarpal bones except the knobs on the palmar sides of their heads and the exposed articular cartilages. (Fig. 32.) In cases where the first phalanges of *all four* of these fingers are every one so badly injured as to demand amputation, and it is possible to save even less than half of *each* phalanx, this should be done, thereby preserving to a degree the power of flexion to the palm by flexing the stumps in unison, a movement which is of great value in handling and manipulating tools, machinery, and so on.

The incisions necessary for the removal of a metacarpal bone should always be made upon the dorsal aspect of the hand, and the bone should always be removed by an oblique section, with the cut surface away from the median line. (Fig. 33.) Whenever possible, dissect the periosteum loose before cutting the bone and use it as a covering for the cut surface; results are better if this be done, as cicatricial adhesions to the bone are avoided and there is less apt to be pain, tenderness or ulceration.

A finger ankylosed in full extension in all its joints (Fig. 34) is worse than no finger, and wherever such an ankylosis is an inevitable result of its healing, it is better to resort to amputation, unless the patient will consent to a subsequent arthroplastic operation for the formation of a new joint.

In injuries to the thumb save as much as possible, regardless of the shortness of the stump, possible phalangeal ankylosis or disfigurement. The thumb is the most valuable of the digits, and if the functions of the other fingers be intact, the smallest thenar stump, even if ankylosed, is of immense value in maintaining the usefulness of the hand as a whole.

In amputations through the metacarpus, the thumb being saved, do not remove any more tissue than is necessary to secure a satisfactory palmar flap. When a metacarpal amputation takes in a portion of the thumb, save as much of the thumb as possible.

In amputations through the carpus try to cover the end of the stump with a flap from either the thenar or hypothenar eminence; failing in this, use whatever tissue is available, and if necessary to remove part of the bones to secure flaps, always get the flaps from the palmar tissues.

In amputations at the wrist always preserve the condyles of the radius and ulna, as these prominences afford points of support and fixation for prosthetic appliances.

(*To be Continued.*)

System for the General Practitioner

Practical Advice for the Business Side of Medicine

By J. WILLIAM WATSON, A. M., M. D., South Braintree, Mass.

EDITORIAL NOTE.—Success in medicine depends upon something more than knowledge and technical training. The knowledge must be systematized, so as to be usable; the technical skill must be added to by observation and study. These things involve order in the physician's office, in the collection and preservation of his literature, in the preparation and filing of his case reports, and finally—and by no means of least importance—the keeping of his accounts. Many a man has failed primarily from lack of system. Every doctor needs to make it a study—and it is help along these lines that Dr. Watson offers in the article which follows.

II

THE "General and Obstetrical History" sheets will meet many requirements except where you wish to go into a specialty, like the eye, for instance.

THE HISTORY SHEET; POINTS REGARDING ITS USE.

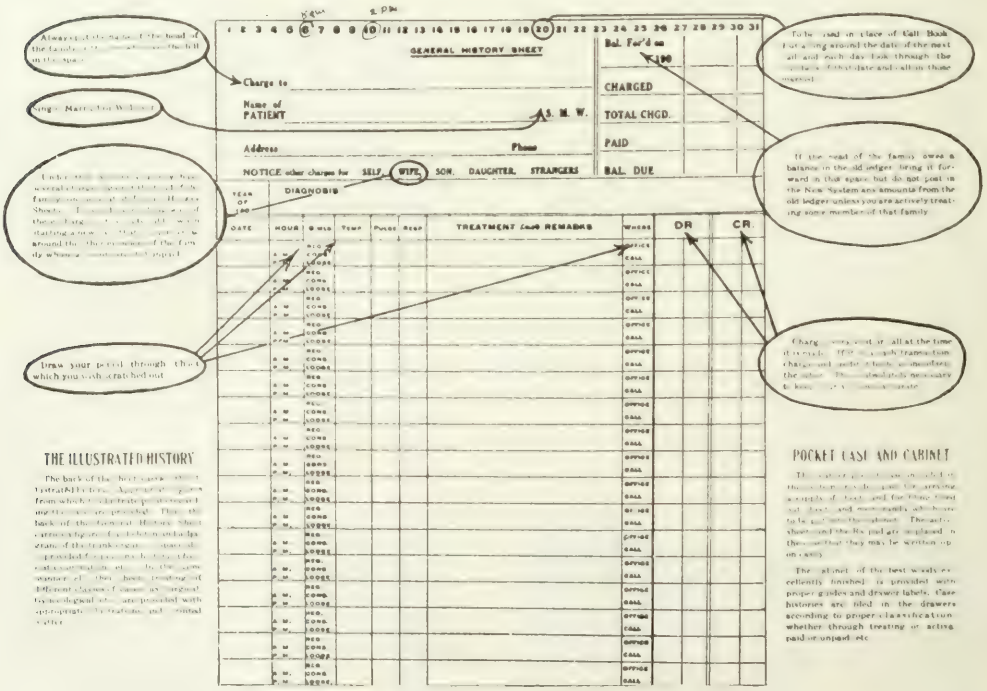


Fig. 7. The history sheet

One side of these sheets is illustrated in Figures 7 and 8.

The numbers at the top of the sheet are very useful. This system is the only one coming to my notice that has such numbers. I put a "C" in lead pencil for a house or "call" case, and an "O" for treatment at the office, around the number or date on which it is to be made, and also the special hour, if desired, is written above, as shown in the cut. When the case has been attended to the pencil marks are rubbed out and the next engagement is made. Permanent rec-

OBSTETRICAL HISTORY SHEET

Bal. For'd on 190

Charge to

CHARGED

Name of PATIENT S. M. W.

TOTAL CHGD.

Address Phone

PAID

NOTICE other charges for SELF. WIFE. SON. DAUGHTER. STRANGERS

BAL. DUE

DATE 190	HOUR	TEMP.	RESP.	PULSE	BOWELS	URINE	ANTE NATAL TREATMENT	WHERE	OR.	CR.
	A M / P M				REG. CONS. LOOSE			OFFICE / CALL		
	A M / P M				REG. CONS. LOOSE			OFFICE / CALL		
	A M / P M				REG. CONS. LOOSE			OFFICE / CALL		
	A M / P M				REG. CONS. LOOSE			OFFICE / CALL		
	A M / P M				REG. CONS. LOOSE			OFFICE / CALL		

DR ARRIVED	DR DEPARTED	HRS	REC. THERE	CONS	LABOR	LABOR PROBABLE 190	WHERE
				REG.			HOME
A M / P M	A M / P M			CONS. LOOSE			HOSP.
A M / P M	A M / P M			REG. CONS. LOOSE			HOME / HOSP.
A M / P M	A M / P M			REG. CONS. LOOSE			HOME / HOSP.
A M / P M	A M / P M			REG. CONS. LOOSE			HOME / HOSP.
A M / P M	A M / P M			REG. CONS. LOOSE			HOME / HOSP.

HOUR	TEMP.	RESP.	PULSE	BOWELS	POST NATAL TREATMENT	WHERE
				REG. CONS. LOOSE		OFFICE / CALL
A. M. / P. M.				REG. CONS. LOOSE		OFFICE / CALL
A. M. / P. M.				REG. CONS. LOOSE		OFFICE / CALL
A. M. / P. M.				REG. CONS. LOOSE		OFFICE / CALL
A. M. / P. M.				REG. CONS. LOOSE		OFFICE / CALL

PATIENT PERSONS

Fig. 8. The obstetrical history sheet

ords are made always in ink, and for this purpose I carry with me three different colors, for "contrasty" effects.

To these sheets—blank sheets of the size of 7 × 5 1-2 inches—may be attached with mucilage, and the case can go on almost indefinitely. I have used one "General History" sheet with two blanks added for a patient under continuous treatment for nearly a year.

These sheets are best carried in a leather pocket-case, as shown in Figure 9. The engagements are taken from your "Current Cases" daily calendar, spread out and put together in the order that you wish to make your calls. Never take out the "Office Engagements." The "Outside Calls" are placed in the upper pocket, as shown in the cut.

When you return to your office place the work done in compartment No. 1 of "Current Cases." At the end of the day it is interesting to get your total of work done, although this is not necessary; still, every business man wants to know how he stands. I have found it interesting to keep a diary on "The Line a Day" plan, for future reference. Figure 10 shows an actual record (exact

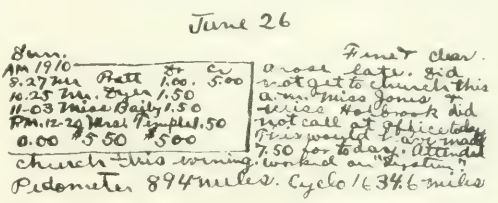


Fig. 10. From the line-a-day book

size) from my diary taken from the sheets at the end of the day. I have easily recorded some twenty transactions in this way. It is interesting to note where and how you have put in your time.

The $0.00, $5.50, $5.00 is shown in Figure 11, and is self-explanatory. It is entered on this daily and monthly summary sheet, which also gives the grand total from the beginning of the year. These I made with a duplicator and have bound them in book form so the work can be compared for seven years.

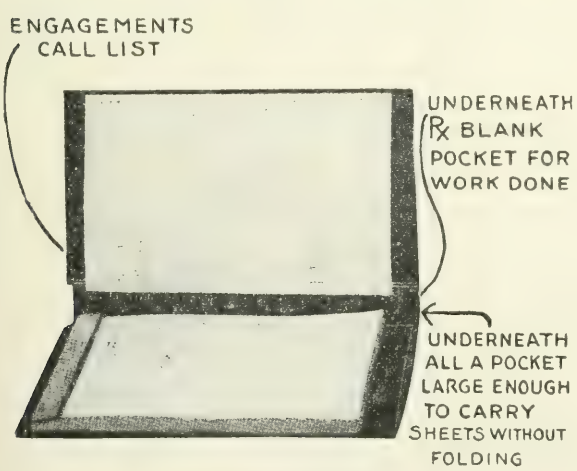


Fig. 9. Pocket-Case

When the day's work is completed and these few entries have been made, more for the pleasure of knowing what you are doing than that it is required by the system, the "History Sheets" are filed away, those with engagements in the "Current-Case Calendar," those that are "done" in the "Cases Treated this Month." The latter are filed away in strong envelopes (printed as shown in Fig. 12) by families under the name of the one who is responsible for the payment of the bill. These envelopes are made to order; size 5 7-8 by 4 inches.

NAME DISEASES

ADDRESS

1910 DATE FROM	TO	DR	1910 MO.	DAY	CR	MEMORANDA
June 1	30	$58 00	June	20	$25 00	$1.25 to

Fig. 12. Account memorandum

Filing Envelopes

If they are cash-paying patients nothing appears on the envelope except the name, address and the diseases. Where there are charges, these are noted in the proper place, and the memorandum gives you information as to the time you sent out bills and how your collection proceeds. It is very easy to make out bills from this system as each patient has his own sheet and the account does not have to be culled from a ledger containing all the family record of sickness. For instance, a bill to John Jones would read:

June 1-15	To professional work & attentions	Self	$10.00
" 11	" " " 16	Wife	8.00
" 16-28	" " " 29	Son	40.00
			$58.00

Month of JUNE 1910

Date	Daily Cash Business	Daily Charge Business	Daily Cash on Bills Paid	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26	$0 00	$5 50	$5 00	
27				
28				
29				
30				
31				
Total				
Bryt. Forrd.				
Grand Total				

Fig. 11. Daily and monthly summary reports

If the patient wants a more itemized account than that, it is very easy to accommodate him. On the outside of the envelope, in the debit column, write the total: June 1-30, $58.00. Should he pay anything on account, write the time and amount in the credit column: June 20, $25.00 at 2 p. m. I oftentimes note payments on the "History Sheet" of the head of the family. In this way you have a check on your work. When you are making out your bills it is always a good plan to keep a list of the patients and the amounts they owe. With this always with you you are ready for anyone who wants to pay his bill. A still better way is to get a little pocket-ledger such as Huff Company puts out for a dollar. This contains 300 accounts and is easily revised from month to month.

In the case or cabinet above mentioned nothing but "History" sheets is supposed to be filed away. The convenient daily reminder is not to be used for anything else. All this is for your patients alone.

Every physician should have near his left elbow an "Office Tickler" which can be made to give the days of the week as well as the "Cases Under Treatment," or "Current". This is a great convenience, for here you can place everything that must be attended to—letters to be answered, etc. It will enable you to be a physician that keeps his word and never forgets any engagement. Make notes of your dates and put them in the "Work Done" compartment of your pocket-case, and on reaching the office you can put these dates and engagements in their proper places. It saves brain worry, and the memory can be employed for things more useful.

The "Accounts" drawer shows "a follow-up plan" for collections. By this plan you can see whether your lawyers and collectors are attending to business. Your accounts are where you can easily find them. You always have a ready finger on the financial end of your business.

In regard to collections, get all the information that you can. A knowledge of law is a good thing. It is in his collections that the physician becomes a business man, a salesman; you are selling your patient a settlement of his account. It is important to know how to write letters that will reach this class of people. There is a little book on "How to Write Letters That Win" which would be helpful to every physician. "Successful Collecting", of less than fifty pages, gives systematic information. There is a magazine on "System" which it would pay any physician to read occasionally, at least until he gets a system of his own well established. Study to save work and make your time count.

Medical Testimony

Observations, Experiences and Suggestions

By A. D. HARD, M. D., Marshall, Minnesota

THE answers of medical expert witnesses often bring disgrace and decrease of professional dignity to the body of men who should occupy a very high position in the minds of their fellow mortals. No calling in life demands more serious and ethical conduct than that of the physician. No human being is called to bear the responsibility of life and death, or to safeguard honor, to the extent demanded of the physician.

No man of any calling should be as strictly honest as a physician. The lawyer may be dishonest, and as a result be even more successful in winning cases thereby. The clergyman may preach ideals that he does not follow nor try to exemplify, and but little if any bad effects follow except to himself. But if a physician fails in his strict duty to his fellow man, sorrow, suffering and death trail in his path. Therefore, any thing which lowers his dignified standing in the minds of the people injures not only the physician but all those whom he may serve.

The Doctor at a Disadvantage on the Witness Stand

As a rule physicians are not trained in the school of wordy antagonism which lawyers are so fond of attending, and when, from the witness stand with its disadvantages, he pits his cleverness against that of the questioning attorney, he usually comes out second best in every respect. This is one of the very few instances in a physician's life-work where an unsympathetic audience grasps the chance to laugh at his expense, and the newspapers follow with ridicule and derision. This is deplorable, and should be avoided in the interests of humanity, even if not of the physician himself.

My first experience on the expert stand was in the famous damage suit of Professor Maclean of Ann Arbor against *The Detroit*

Evening News for defamation of character. Before going on the stand I was "coached" to disarm the crossquestioning of Col. Atkinson, one of the shrewdest attorneys in the land, by wordy thrusts to the quick of the very heart. I was told to frame an answer in a way to slur the little child of his that at the time lay at the point of death from diphtheria. Words were put into my mouth to hurl at him that would recall to his mind things that he would fain forget, in order to disconcert him in his efforts to twist my testimony into something that would be useful to his side.

I was told by Prof. Maclean that no sum of money would be promised me for my services lest that fact should be brought out to show that my mind was prejudiced and my words would lose their force. And, incidentally, this was taken advantage of afterward to deprive me of my fee.

I knew nothing of the facts concerning the case. As usual, the experts plainly indicated by their testimony on which side they were called, and as the professor made the best showing to the jury, they gave him twenty thousand dollars damages, contrary to justice and equity, I believe.

How One Witness Was Tripped

I give this illustration to show the inside of what so often is done by attorneys to win their cases, and its effect upon the medical witnesses who may be dragged into the dirty mess, leaving them in a regretful frame of mind over the matter forever after.

I recall a case where a prominent Indiana physician was tricked into a disgraceful exhibition of himself, to the lowering of general professional esteem, by the clever work of a smart attorney. The physician was asked if the patient was in a condition of "euthanasia" at the time referred to. The physician recognized the word as a medical term, but was not clear in his mind as to its exact meaning. Of course our medical friend did not wish to appear thus ignorant before the vast audience, and he thought that the answer "Yes" would end the matter, so he assumed a dignified appearance of extreme wisdom and said, "Yes, certainly."

The opposing attorney had been burning midnight oil searching for this word, and when he asked the obliging witness to explain to the jury the meaning of that word, "euthanasia," the poor fellow fell down completely, and he was made to appear ridiculous to the audience, worthless in the minds of the jury, and silly in the newspapers, which gave the incident prominence to the disgrace of every physician in the state. But the physicians of Indiana can never again be caught on that word "euthanasia," they will not forget it.

Another Catch Question

In a recent trial in Minnesota an ex probate judge who feels himself to be a shining legal light in the magnificent city of Minneapolis attempted to disconcert a medical expert witness in order to destroy the effect of his testimony by asking him, "How far is it from the anus to the rectum?" The judge did not seem to know anything about those terms and permitted the question to be asked. As will be seen, the question was simply a catch question calculated to lead the witness into the depths of trouble. Luckily for the physician, an idea came to his rescue which solved the problem for him, and left him with flags flying. His answer was, "About as far as it is from the hole of a doughnut to the doughnut, and the answer is about as sensible as the question." The attorney wilted, but later on got even with the doctor by calling him a "skunk" to the jury.

In another suit in Minnesota of recent date the medical experts on the side of a railroad company showed very distinctly by their testimony that they had passes on the road and did not wish to lose them. The jury were impressed with that idea and disagreed instead of rendering a verdict.

The significance of these incidents tally with the results of the Thaw trial, and go to show that a more dignified manner of using medical knowledge for the information of juries should be devised. The method best calculated to conserve professional dignity and due respect for medicine as a science, should exclude all crossexamining by at-

orneys which has for its object the discredit of the witness.

No expert, it is plain, should be called to testify by anyone except the judge who is trying the case. Questions of expert opinion and crossquestions based upon them should be submitted in writing to the judge by the attorneys, and such questions as are considered proper by the judge should be given to the witness to answer as a matter of information to the men on the jury in order that they may arrive at a more nearly correct decision.

The qualifications of witnesses as experts should be admitted by attorneys for each side, and the value of the testimony should be weighed by the jury alone. The remuneration for the expert knowledge called for should be ordered by the judge independently of the outcome of the suit. The expert should be accepted or rejected upon his answers to qualifying questions similar to those asked to a juror.

One thing is undeniable: it is no more right to ridicule and attempt to disgrace a medical expert on the stand than it is to do that to the jury which tries the case. He is entitled to the same careful respect by the attorneys as the judge on the bench, and until this is given, medical expert testimony will continue to be not only worthless as a means of securing justice, but a destroyer of the dignity of the medical profession in general.

THE MAN WHO FRETS

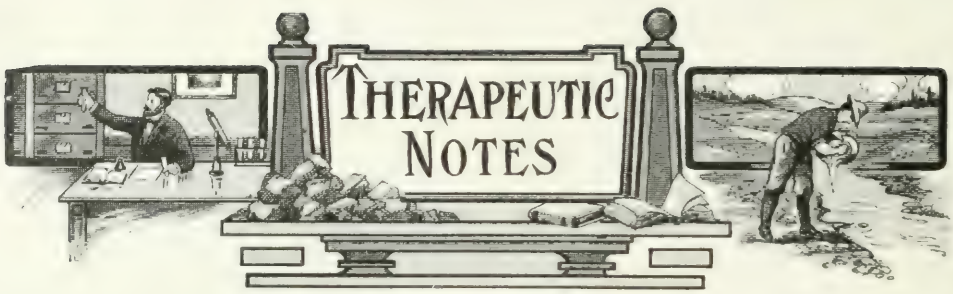
BY L. W. ZOCHERT, M. D.

The fretter he fritters his time away
On foolishsome fumings and fuss;
He may know that the flowers are blooming in May,
But he simply just don't care a cuss!

He'll blankly blink at the blithesome blue,
But will frowningly look for the cloud;
If his heart should be singing a tune or two,
He would fear lest the tune be too loud.

He falteringly fails to go moving ahead,
Lest in using his feet he should fall;
Forgetting the while that he'd better be dead
Than not to be moving at all.

Oh the fretter he fritters his tune away,
In stewing with strenuous stress;
For him is no joy and no laughter gay,
And life is just one danged mess!



THE TREATMENT OF HEMORRHAGE IN TYPHOID FEVER

Michaelis (*Med. Klinik*, 1908, No. 2) has employed high enemata of a 10-percent gelatin solution successfully to arrest severe hemorrhages in typhoid fever, and warmly recommends the method. That's good—worth trying. But don't forget the importance of intestinal *rest* during these hemorrhages. Atropine is indicated—sometimes morphine also.

PRECAUTIONS IN THE USE OF FIBROLYSIN

Dr. Stocker (noticed in *Therap. Monatsh.*, April, 1910) says that, since fibrolysin acts as a solvent upon cicatrices of any age, it is important, before injecting the remedy, to ascertain whether the patient has a history of having passed through a severe infection. He has observed a case where vaccination-marks upon the arm, which dated from a vaccination thirty years ago, were considerably inflamed, with production of high temperature, during a fibrolysin treatment for adhesions in the abdomen.

Stocker calls attention to the importance of being careful in the use of fibrolysin in cases of healed pulmonary tuberculosis and in healed ulcerative processes in the gastrointestinal canal, because the scars produced by such healing may be affected by fibrolysin and the disease may be reactivated. He cautions against the use of fibrolysin in the conditions named, because, while any other scar which was to be softened by the remedy would undoubtedly be affected, these healed lesions would in like manner be influenced and a new ulcer in the stomach or intestines, or a new phthisical process in the lungs might be produced, which undoubtedly would lead to severe disease.

FAVORABLE RESULTS FROM ATROPINE IN DIABETES

Rudisch (*Therapeut. Monatsh.*, March, 1910) has seen surprisingly favorable results in diabetes from treatment with atropine. He employed the sulphate and the methylhydrobromide of atropine. As a rule the dosage of one-third of the maximal doses was sufficient, but as much as 0.003 Gram of atropine sulphate and 0.032 Gram of the methylhydrobromide three times a day was employed without untoward results.

THE TREATMENT OF HEMORRHOIDS

Boas (*Therap. Monatsh.*, March, 1910) recommends a peculiar mode of treating hemorrhoids. It consists in letting the patient force the hemorrhoids out as much as possible and then not reducing them. After a short time congestive edema occurs, followed by atrophy and then by healing. Boas has carried out this very simple method in eight cases, with good results. It causes but slight trouble and is entirely without danger. It is, of course, only adapted for internal hemorrhoids.

CHEWING GUM IN TYPHOID FEVER

Among the excellent therapeutic suggestions given by Dr. Young of the Marine Hospital, Chicago, at a recent medical meeting in this city, was one as to the use-

fulness of chewing gum for the dry tongue and mouth so characteristic of typhoid-fever. When the patient is generously supplied with the "gum" and chews it faithfully (as he is pretty sure to do) the mouth becomes moist and the teeth, which have been covered with sordes become and remain white throughout the illness. This simple remedy has been such a comfort that as a matter of routine he now supplies chewing gum to all his typhoid-fever patients.

THE MILLER DIET IN TYPHOID FEVER

The tendency at the present time is to provide patients suffering from this disease with a more generous diet. The "Miller diet," so called, as employed in one of our Chicago hospitals, is as follows: At 8 a. m. the patient is given a soft-boiled egg and some well-cooked cereal, with cream; at 10 he is given egg-nog; at 12 m., 50 Grams of bacon, a soft-boiled egg and a custard; at 2 p. m. another egg-nog is given; at 4, gelatin with cream and some palatable fruit sauce; at 6, egg, bread and butter, with cream. Under this diet it is stated that the mortality has decidedly diminished.

CHROMIUM SULPHATE: IS IT OF VALUE IN INFANTILE PARALYSIS?

On account of its action in correcting or preventing the degenerations of fibrous connective tissue, and in view of the fact that changes of this kind undoubtedly take place during the course of acute anterior poliomyelitis, it has been suggested that chromium sulphate might be a valuable remedy in this disease. So far as we know it has never been used in these cases, but it is certainly worthy a trial, especially during the stage of early convalescence. Who will try it out and report?

THE TREATMENT OF CHLOROSIS

Assuming that in chlorosis the hemoglobin-content of the blood is not diminished, but the plasma increased, Melland (*Brit. Med. Jour.*, Dec. 11, 1909) claims that the disease may be cured, without the administration of iron, merely by reducing the blood-water. He has employed this principle in the treatment of chlorosis in actual practice, depriving the organism of water by diuresis, by limiting the amount of water ingested, as well as of all fluids in the food, finally by prohibiting salty food. With such treatment the body-weight is rapidly reduced, although the patient feels much better. Theoretically a complete cure may be obtained. Melland's experience shows, nevertheless, that a cure is promoted by the addition of iron to the above treatment.

ANEMIA

Castro presented the following scheme for treatment:

DOMINANT

- For anemia proper: quassin; strychnine arsenate; pepsin and diastase
- For cachectic anemia: laxative saline; strychnine hypophosphite
- For essential anemia, chlorosis: iron (arsenate; phosphate; lactate; valerianate; salicylate); tannic acid; strychnine arsenate; strychnine hypophosphite

VARIANT

- Palpitation: digitalin
- Gastralgia: codeine; hyoscyamine; morphine hydrobromide; atropine sulphate; cocaine
- Cephalalgia: congestive: aconitine; anemic: Gregory's salt; ammonium benzoate; monobromated camphor
- Neuralgias: periodic: quinine valerianate; quinine hydrobromide; irregular: gelseminine; guaranine
- Constipation: podophyllin; euonymin
- Amenorrhea: iodoform; iron arsenate
- Menorrhagia: ergotin; tannic acid; strychnine sulphate

ACUTE ANTERIOR POLIOMYELITIS

What can we do in cases of this kind, now so prevalent? The following outline of

treatment has been suggested: First, of course, we should secure rapid elimination. Use small doses of elaterin (1-67 grain or more) half-hourly, or calomel and podophyllin in 1-6 grain doses, followed by laxative salines. Maintain intestinal cleanliness with sulphocarbolates. Keep the patient quietly in bed in a darkened room. Gowers says he should not be allowed to lie on the back on account of the danger of increasing the local congestion, but pillows under the back will raise the spine. Fly-blisters applied at intervals along the spine may be helpful. To combat the toxemia use calcium sulphide and echinacea, pushing in full dosage. Nuclein should be of very great service. Give 20 minims on the tongue every four hours, or for prompt action administer it hypodermically. Arsenic iodide is another valuable remedy, perhaps most useful during beginning convalescence. Inunctions with unguentum Credé are suggested.

GELATIN ENEMAS FOR COLON CATARRH

The treatment of chronic catarrh of the colon with hot injections of gelatin is recommended by L. Von Aldor (*Therap. Monatsh.*, 1910, No. 4), who reports his experiences in seven cases of obstinate, severe cases of this affection associated with diarrhea, having had good results from the use of high enemata of a 10-percent solution. These applications not only diminished the diarrhea, but also had a beneficial effect on the inflammatory condition of the bowels.

One hour before the treatment the patient receives an enema with one-half liter of water of a temperature of from 25° to 28° C., this being discharged as completely as possible, after which the patient remains quiet for one-half to three-quarters of an hour. The injection of the 10-percent sterilized gelatin solution is then given with the patient in the Sims position, from 40 to 80 Cc. being injected through the colon-tube at a temperature of from 45° to 50° C. The patient then lies on his back for two hours, with hot applications on the abdomen. In this manner the injection will be retained in the majority of these cases.

We must not lose sight of the fact that the upper portion of the rectum as well as the colon will easily bear much higher temperatures than the lower part of the rectum, especially the sphincter, therefore, if the injections are given as an ordinary enema, the considerable heat will cause their prompt expulsion.

The administration of gelatin in the form of enema is without danger and free from all disagreeable symptoms. The author has carefully watched the action of the gelatin on the kidneys and has never found any harmful influence. He recalls that gelatin was introduced into dietetic therapy of gastric ulcer by Professor Senator more than thirty years ago, and that it has recently been recommended again for the purpose of nutrition in persons suffering with chronic colitis, for the treatment of hemorrhage in typhoid fever, and in other conditions.

As an explanation of the favorable action of high enemata of gelatin, the author says that, for one thing, the high temperature undoubtedly forms an important curative factor, but this cannot be alone held accountable for the results. It is probable that the content of calcium of gelatin, as well as the mechanical protection which the substance affords to the inflamed mucosa against the irritating contents of the intestine, are to be considered as partly responsible for the favorable results.

ASSIMILABILITY OF VARIOUS FORMS OF IRON

Schirokauer has made some experiments concerning iron metabolism, in Senator's Polyclinic in Berlin, which are reviewed in *Therapeutische Monatshefte* for March, 1910, his experimental subjects being dogs with gastric fistulæ and a child with an esophagus-stomach fistula. The best-known organic iron preparations were tested. They were introduced into the stomach and then removed after a while and tested with potassium ferrocyanide. It was found that all iron preparations, without exception, gave off ionized iron under the influence of the hydrochloric acid of the gastric juice. It

would therefore practically be a matter of no account which kind of iron preparation is given, in so far as we may wish to obtain the effect of iron, but the organic preparations are to be preferred, because from them the chloride of iron is formed more slowly and in smaller amounts, so that there occurs less irritation and hence they are better tolerated by the stomach.

ROSENFELD'S TREATMENT OF OBESITY

Rosenfeld's treatment of obesity by regulation of the diet is reviewed in the *Therapeutische Monatshefte* for March, 1910. It consists in the copious ingestion of cold water, tea and thin soups, in order to fill the stomach. Small, frequent meals and rest in bed are preferable to large and infrequent meals and to strenuous exercise, since they exert less stimulating action on the appetite. Rosenfeld makes free use of potatoes and of vegetables which fill up the stomach and yet have only slight caloric value. He does not limit his treatment to fixed "courses," but advocates it as a regular mode of living to be followed continuously, claiming that it will produce a daily reduction of from 250 to 300 Grams. Larger losses in weight depend upon the withdrawal of water. The method has the advantage of obviating unfavorable by-effects, especially nervousness.

All of which is of value. In practice the physician will find it worth while to resort to suitable supplementary drugs. Free elimination with laxative salines, guarded doses of thyroid, and such remedies as colchicine, berberine, apocynin, alnuin and phytolaccin, will prove of value.

OBESITY AND A VEGETABLE DIET

Prof. A. Albu of Berlin has employed a coarse vegetable diet, which contains large amounts of foodstuffs that are heavy and difficult of digestion, for the treatment of obesity, trying this method in twenty-nine cases for the purpose of reducing the surplus of fat. The idea is that the stomach be filled with a considerable amount of foodstuff presenting a large volume, but of relatively small caloric content. Under such conditions about half of the ordinary number of calories, i. e., from twelve to fifteen hundred, were found to suffice as a rule. At first a rapid diminution in weight occurred, without any resulting serious symptoms, however, and these soon ceased.

It is important, in order to obtain good results, that the food shall not be administered in the form of mush. Once or twice during the week two hundred Grams of peas, beans or lentils may be eaten, but not in the form of porridge. Otherwise cereals and leguminous foodstuffs are not permitted, on account of their relatively high food value. Besides bread, vegetables, preserves and raw foods must form the principal amount of the diet, which may also contain potatoes, especially if boiled in their jackets. For bread, the coarse graham bread is most serviceable because of its being difficult of digestion. Drinks like coffee, tea, bouillon, water, lemonade, buttermilk contribute to fill the stomach. They must be avoided during meals if they stimulate the appetite.

Good permanent results are best obtained if the diminution in weight occurs as evenly as possible. A course of treatment in which not too high weekly reductions in weight occur can be continued for some time, and thus a considerable reduction in weight may be obtained, although this does not necessarily have to be proportionate to the degree of the obesity.

The author refers to the small amount of proteids in his regimen. It contains from forty to fifty Grams, not more than sixty to sixty-five, and he expresses his doubts as to the correctness of attributing too much value to the loss in proteid, for, after all, this becomes irrelevant on the copious ingestion of carbohydrates, which tend to save proteid loss. With a daily amount of carbohydrates of 250 to 300 Grams the vegetable diet surpasses the treatment of Dr. Ortel. As for the fat permitted, Albus' method stands between the extremes of the methods hitherto in vogue. Of these the potato diet, with which meat is also

given, contains more proteid from 20 to 30 percent. If treatment is carefully regulated and the menu intelligently modified, the course can be passed through without trouble and complicating features and without any harm to health, nor are these to be feared after termination of the treatment.

Physical exercise and hydriatic procedures may of course be undertaken at the same time, but are not essential. After from four to six weeks, on some days 150 to 200 Grams of boiled beef was added to the bill of fare and finally it was permitted daily; in this manner the reduction in weight was soon arrested. Such a mixed diet, with little meat, can be carried through for a long period without trouble and without an increase of fat which, if it does occur, can be removed by courses of vegetable diet lasting from four to six weeks. Not only obesity but constitutional adiposity are influenced, although the latter not as promptly.

Complications of obesity, especially fatty heart and digestive disturbances, contraindicate this method, which the author illustrates in detail by numerous statistics. (Reviewed in *Therap. Monatsh.*, Feb., 1910.

VALUE OF VERATRUM VIRIDE

In *The Lancet-Clinic* Dr. Landis says that eighteen years of clinical experience with veratrum viride, under a constantly widening variety of physiological conditions, has led him to regard it as the most valuable single therapeutic resource at his command. Its value lies in its power as an eliminant; and when we consider that elimination in strictly medical cases is of the same enormous importance that drainage is to surgery, veratrine cannot be overestimated. Nor can we overlook its power to overcome sthenic states and thereby actually to abort or modify in a favorable way acute inflammatory conditions, no less than its power as an antispasmodic. Possibly it increases the normal resistance or acts as an antidote to toxins. Possibly it works through the vasomotors, restoring to their normal inflammatory areas where the vasomotor control has been lost. In these conditions of acute inflammation with high fever, rapid, full pulse and impending or actual delirium, its action is little less than magical.

In the discussion following the reading of this paper Herman said: "The Pharmacopeia authorized the use of either white or green veratrum. The white contains poisonous alkaloids, the green does not."

Fitch said that veratrum viride, aconite and nitroglycerin are used to reduce the rapidity and control the blood pressure in the vessels. Aconite, the most dangerous, acts on the heart-muscles directly, while the advantage of veratrum viride is that it acts centrally by paralyzing the vasoconstrictor nerves, but does not affect the heart *per se*. Nitroglycerin acts by paralyzing the peripheral vasoconstrictor nerves, causing dilatation of peripheral vessels. Of the three, veratrum gives the best results.

Dr. Heyn detailed the clinical tests made in the wards of the Cincinnati Hospital. These showed that veratrum promptly reduced blood pressure within six hours, often much sooner. Norwood's tincture was the form used. After the administration was discontinued the blood-pressure rose within a few hours and was often normal within twenty-four to thirty-six hours. No untoward effects resulted. The cases tested were normal, as well as some of arteriosclerosis, hypertension of unknown origin, chronic nephritis, and frequently a combination of heart and kidney cases.

Gillespie described the action of veratrum in a chronic convulsion of a child a week old. In two minutes the spasm was relaxed and in a few minutes more it began to vomit, had a slow pulse and sighing respiration, and in spite of total suppression of urine for more than twenty-four hours the child was alive and well. He asked what other drug or combination of drugs in or out of the Pharmacopeia would produce such results. "These children have a feeble pulse, cold surface and high internal temperature, and I never saw one recover until I began to use veratrum. In cases of any acute toxemia, it should be given in sufficient dose to produce immediate effects. Given thus, it is the greatest life-saver we possess."

The Need of Studying Senility

V.

Before answering the question What is death? would it not be useful to have a definite conception of the life of the living being, and ought we not first to analyze succinctly the primordial characteristics of living matter? A few words must suffice here.

The essential characteristic of living matter is its *instability*. It is by this that it is most distinguished from inorganic matter. I will not enter into a summary exposition of the different appearances which may be shown to exist between matter called dead [*brute*] and living matter. Biology and physiology have occasion to change daily the lines of demarcation between these two states of matter; in Sabatier's book you can read with profit of the arguments for the assimilation of these two forms of being. Be this as it may, the apparent immutability of crude matter is certainly the opposite of the instability of that matter which we call living, and this constitutes a principal difference between the two.

In what does this instability consist? Its manifestations are many, and in some sort they make up the attributes of living matter. They are irritability, motility, the faculty of exchange with matter exterior to itself, and, lastly, the faculty of reproduction, which last is the most marked characteristic of living matter. We know, in fact, that under the influence of particular affinities, or of external agents, the constituent elements of certain bodies may unite and form these bodies without the necessary prior presence of any fragment of the resulting body. Never will any fragment of this body determine the production of that body. On the contrary, living matter may cause the appearance of elements, either directly, when they are free, or indirectly, when they are united in more complex combinations, which are necessary to the making of a new mass of living matter, identical with itself, sometimes even better endowed than it is, providing the external media favor, by providing an abundant supply of the various component parts. But the presence of a particle of living matter is absolutely indispensable when an altogether new formation of living matter is to be produced; and this formation is the resultant of actions exercised by that alluring living particle on the medium that surrounds it, which living particle is the only one capable of determining the movement of the elements into integration in the surrounding medium, with the object of constituting a new particle of living matter. This part which the alluring particle of matter plays on the surrounding agents is, according to Sabatier, of capital importance in the existence of living matter. He goes so far as to say that the protoplasm plays this part *necessarily*. This is the recognition in the protoplasm of an intrinsic property, this is to make of it "the characteristic of living matter, since without this action the protoplasm can not find, for the purpose of growth or repair, a protoplasm already formed which it can appropriate."

There is more than mere ingenuity in this interpretation of the nutrition-phenomena,

and if, on first view, this conception of the alluring power (*pouvoir d' amorce*) of living matter seems to be confounded with the function of assimilation, yet a more profound study will show all the happy consequences which this interpretation may have for a more intimate knowledge of vital phenomena generally. It seems to me that in this manner of conceiving and interpreting the means by which living matter repairs itself there is more than the mere find of a happy word, and that it would be a mistake to see in this expression a mere new synonym for the words "assimilation" or "nutrition." We have to understand the sense of the word "allure," (*amorce*), and comprehend in it "a movement capable of provoking a similar movement in a similar medium." This is the interpretation we must give to this term, and it is thus that we shall comprehend it whenever we shall speak of the "alluring power" (*pouvoir d' amorce*). It is by this alluring power that we came to figure to ourself, easily, all the *moments* in the life of living matter; it is by this that we interpret all the movements of integration, constitution and repair. On the other hand, the movements of disintegration, division and destruction tend above all to a diminution of this alluring power. We are bound to regard this alluring power as playing the first and principal part in the maintenance of life, since it is by it that life can create living matter for itself; by it, also, can living matter nourish itself, can develop itself and give birth by itself to other portions of living matter.

We come back now to the question that concerns us: Why does living matter die? We shall see this by studying *how* it dies.

Life is nothing but a constant transformation of matter, and we can say that life is everywhere. From a general point of view we might deny death and consider it as not existing. But we have confined our study to living matter alone, to which we have given characteristics which limit it, which circumscribe it, which individualize it in a series of bodies of variable but definite form. When these characteristics become lost or are transformed, then it is no longer living matter. This will always be alive, but the living matter, in respect to its proper individuality, will have disappeared, and we shall say then that it is dead. Death therefore does exist. We might define the death of living matter by saying that it is "the loss of the characteristics of living matter."

To the question, Why does living matter die? the answer may prove to be full of difficulties. For it seems at first view that all the conditions conspired to promise its immortality. So it possesses a great alluring power, and its instability permits its bending to every exigency of the surrounding medium, and its exterior medium is an inexhaustible mine from which it can draw the elements it needs at discretion. We ought therefore to suppose that as long as it rests in the state of simple living matter that there would be no reason why its characteristics should undergo any modification, and, as Sabatier says, "potential immortality was assured to it, or in other words, it was bound to remain protected against natural death." It is evident, however, that the expression "immortality" must not be taken here in the transcendental sense of the word, which would be synonymous with "immutability." What would then be the value of this term? If nothing can change, if all the elements have to be immutable in their relation to each other, would this not be the loss of their instability and of their alluring power, the two principal characteristics of living matter? Would this not be immutability precisely, the grand characteristic of crude, or nonliving matter? This would be negating the circulation of matter, which is an essential part of physiologic life; and this would be the suppression of living matter, as Sabatier says. What we are concerned alone about here is primordial living matter, which is of a fixity that persists in spite of the incessant partial modifications which are the very essence of life. This living matter takes from the surrounding matter around it substances in one form which it returns in another form, keeping up thus the circulation of matter which it needs to compensate the losses it has undergone in the

act of functionating, and in order to remain continuously identical with itself. These detail mutations in the living matter, which we consider, are certainly but small compared with the mass and are effected only little by little, so that it would be impossible to say which parts are renewed, in what quantities and at precisely what moment. These parts become immediately integral parts of the mass of which they take the qualities, habits and tendencies, identifying themselves with it and permitting it to continue itself without there being any interruption, so that there may be continuity and identity. It is therefore in this sense that we are to allow the use of the expression of "immortality" of the primitive living matter. Once, therefore, it is established that living matter ought to remain eternally identical with itself, so long as the external gives satisfaction to its alluring power and for this reason it would seem that death should be avoided.

(*To be continued.*)

RECOGNIZING THE PRINCIPAL ALKALOIDS

In the eighties of the last century Robert communicated a very simple means for verifying the presence of divers alkaloids.

Place in a porcelain dish an equally small quantity of a mixture of the suspected alkaloid and cane sugar. Drop a few drops of sulphuric acid on the mixture and notice the immediate development of color, which varies with the different alkaloids.

Morphine hydrochloride gives a rose color which passes into violet.

Quinine sulphate gives at first a greenish color, then yellow, and finally a coffee color.

Atropine gives a violet color.

Strychnine gives a yellow color.

Narcotine gives a mahogany color.

Veratrine gives a green color.

Codeine gives first a cherry, then a violet color.

In replacing the cane sugar with milk sugar the reaction does not take place.

We have verified (says the writer, Dr. O. Castro) some of the reactions mentioned and found them just as mentioned above. It is, however, to be remembered that some of those reactions will occur when sulphuric acid is added to cane sugar, without any alkaloid.

He also found that the sugar of milk with which the dosimetric granules are made up neither hinders nor complicates the characteristic reactions mentioned.

For all that, the method is an excellent one for a rapid demonstration of the presence of the active plant substances.—Castro, in the *Repertoire Universel de Medecine Dosimetric*, Paris et Ghent, 1881.

[Of course the reader will understand that these are not sufficient tests for the purity or strength of substances containing these alkaloids. The task of identification and analysis is not an easy one, even for the skilled chemist.—GLEANER.]

ADRENALIN HYPODERMICALLY ADMINISTERED

Eckert reports the treatment of the sinking of blood pressure in diphtheria with hypodermic administration of adrenalin, in the Universitiy Clinic of Berlin. The adrenalin used was that of the Hoechst Farbwerke, which represents a one-tenth percent solution of suprarenin hydrochloride. From three to four times daily two to three cubic centimeters were given hypodermically. This treatment raised the blood pressure so that it could be measured even after sinking so low that it could not be measured any more. The greatest effect of the injection was noticed one to two hours after administration, and lasted seven hours.

The injections were painful, but cold compresses soon relieved this. A short time after the injection there appeared a local anemia in an area about as large as the palm of the hand and which was surrounded by a slightly pink margin. This anemic spot, which often lasted for hours, is due, perhaps, to the slow absorption of the remedy, and it is this prolonged duration of its effect that makes it so valuable. Infiltrations, abscesses or gangrene never occurred.

No ill effects on the kidneys were noticed. Excretion of sugar was noticed in greatest

amount one or two hours after the injection, the sugar disappearing entirely after fourteen hours. This sugar excretion is not to be regarded as harmful, since the advantages of the adrenalin effect outweigh it. According to Eckert, adrenalin in large hypodermic doses is an effectual remedy for overcoming reduction of blood pressure in diphtheria. It can be administered for a long time, and it does not fail even in the severest forms of intoxication.—*Therap. Monatsh.*, Aug., 1909; in *Pharm. Zentralh.*, 1910, p. 50.

FIBROLYSIN IN MIDDLE-EAR DEAFNESS

J. Gay French reports, in *The Lancet* of July 24, 1909, on the use of fibrolysin in 52 cases of deafness with tinnitus which were treated with fibrolysin. Of these 16 were essentially improved, i. e., they heard better and the tinnitus was more or less diminished. In 14 cases the tinnitus was diminished but the hearing not improved. In 15 cases there was no improvement at all. In the cases without suppuration improvement was more frequent than in those with suppuration, but in the latter treatment should be begun as soon as possible after the suppuration has ceased and cicatricial tissue begins to form. In cases of otosclerosis the treatment with fibrolysin was very unsatisfactory, and of fifteen cases two only were somewhat improved. In one case the treatment had to be discontinued on account of vertigo taking place after the injection.—*Muenchen. Med. Wochenschr.*, 1909, p. 2548.

SALPINGITIS WITH BACILLI OF EBERTH

Drs. Galliard and Chaput reported an unusual case of typhoid to the Societé Médicale des Hôpitaux, at its meeting in November, 1909. There evidently was, in the case, a lesion of the uterine adnexa antecedently to the typhoid, although not suspected at the time of attack.

A woman, thirty years of age, who denied having had any sickness before admission, on May 28, 1909, to the Lariboisière Hospital, presented symptoms of typhoid fever eight days after its onset. The temperature at first stood at about 40.2° C., then it rose, with oscillations, to about 39° C., and again fell to 37.3° C. on the twenty-third day. After a temporary relapse on the twenty-fourth day, the patient seemed near convalescence, when on the twenty-sixth day she experienced atrocious attacks of colic with vomiting and meteorism, dyspnea, and facies abdominalis; the pulse beating 160 per minute and the temperature rising to 40.2°C. The authors attributed these symptoms to peritonitis from intestinal perforation and decided upon immediate operation.

After a lumbar anesthesia with 8 centigrams (gr. 1 1-3) of novocain, a median laparotomy was made, when the right fallopian tube was discovered to be tumefied and perforated and emptying pus into the small pelvis. This pus yielded a culture of the Eberth bacillus. The uterus and the right adnexa were removed, the vagina being being left wide open and in communication with the peritoneum, without drainage. The patient recovered rapidly.—*Gaz. des Hopitaux*, 1909, p. 1587.

A HERMAPHRODITE

At the session of the Berlin Medizinische Gesellschaft, November 28, 1909, Dr. P. Marcuse presented the following case of a hermaphrodite: A child about 10 years old, with long hair and a deep voice. It had labiæ, a penis with a glans, pubic hair, uterus and genital glands not demonstrable without abdominal paracentesis, the pelvis decidedly masculine.

Dr. Gottschalk remarked that the penis was not perforated, and cryptorchidism was here not probable. He would declare the child a girl.

Dr. Rothmann said that such cases are traceable to an abnormal development of the hypophysis. He considered the child a boy.

Dr. Marcuse replied that, considering the masculine tendencies of the child, he would advise to train it as a boy but, to register it legally as a girl in order to avoid conflict with the law on homosexuality if in future it should feel itself attracted to the male sex.—*Muenchen. Med. Wochenschr.*, 1909, p. 2499.

A Homeopathic View—And a Kindly One

AS an interested reader of the old CLINIC and its lusty successor, THE AMERICAN JOURNAL OF CLINICAL MEDICINE, I can truthfully say that I find it one of the most helpful journals that I read. I like its enterprise, its hustling strenuousness, its fairness and catholicity. Its editorial tone is sound and stimulating and on the whole liberal. Moreover, its articles are practical, meant for the common run of general practitioners, and so helpful. In some other journals I find too large a proportion of articles on diseases one rarely sees and sometimes has not even heard of! Not so with CLINICAL MEDICINE, whose reading matter, editorial and contributed, is always practical and helpful.

I especially like the breezy freshness, the stimulating spice and the outspoken candor of its hustling editor. Great credit, too, is gladly recognized as due him for the value of his contributions to modern therapeutics, for his forceful pushing of the "clean-out, clean-up and keep-clean" idea, and for his trenchant criticism, not only of therapeutic nihilism and agnosticism, but also of the all too prevalent slip-shod empiricism of much modern teaching. Surely, THE AMERICAN JOURNAL OF CLINICAL MEDICINE, by its persistent and strenuous preaching and teaching, has scored a great advance on the older therapeutics, which even some of its prominent teachers have denominated as a "barbarous jargon," as a "most uncertain and unsatisfactory system," having "neither philosophy nor common sense to commend it to confidence."

The insistence upon, not only a careful diagnosis, but also upon individualizing the case, upon treating the patient rather than the disease, and treating him with "the smallest possible quantity of the best obtainable means to produce a desired therapeutic result," deserves all praise. This sounds quite familiar, however, to some of us who had these principles drilled into us the days when we were attending lectures in the medical college. Still, though no new discovery, we heartily subscribe to these ideas.

We will also gladly admit that the use of the active principles, in small doses, frequently repeated until effect, marks a great advance on the old-fashioned "shotgun" prescription containing half a dozen different drugs, many of them crude or impure or composed largely of worthless ingredients. The little "instruments of precision" are not only convenient, but accurate, compact, and as certain in their action as drugs can be. The advocacy of the active principles, especially when coupled with an insistence upon treating the patient rather than the disease, and treating single symptoms with single remedies, is certainly a far cry from the old-fashioned attempt to find a "specific" for every disease; so that all the doctor had to do was to find a correct name for the disease he was treating in order to prescribe the specific drug for its cure.

So, all honor to the strenuous and enthusiastic editor of CLINICAL MEDICINE for his advocacy of these and other principles which undoubtedly mark an advance along the line of progress of rational therapeutics.

Having thrown these small bouquets at the editor, we feel all the more at liberty now to register a "kick". Not a very hard kick, Doctor, only a mild protest that such a fair-minded, enterprising, catholic-spirited man, who has gone as far as he has, should have stopped just short of the fullest liberality. What do I mean? Simply that the usually liberal and fair-minded editor of CLINICAL MEDICINE has not yet been able entirely to rid himself of the outgrown prejudice against a system of medicine that has been teaching, for many years, some of the very truths which he is now so zealously urging, but happens to be called by a name which, though honorable as any in medical history, seems to be the source of unending bitterness and unreasoning prejudice.

My dear Mr. Editor, one of the reasons why I like you and your able journal is because you are teaching, perhaps unwittingly, much pure homeopathy! Occasionally—however, not often, I'm glad to say—I find a sneer or a sling, even in the editorial pages of CLINICAL MEDICINE, at this now "ancient and honorable" system of medicine, which has probably done more for "rational therapeutics," properly understood, than any other medical principle ever enunciated and which certainly has anticipated many of the principles which you now so strenuously advocate.

I will illustrate what I mean. But first let me answer briefly the criticism of the editor that the great weakness and defect of homeopathy, to which he has never received a satisfactory answer, is that when we "prove" crude drugs, tinctures, etc., we don't know exactly what their true physiological action is, there being so many kinds and strengths of tinctures of the same drug, so many different active principles in them, each with a different action on the body.

Let us concede that this objection is valid, so far as it goes, when applied to tinctures or other forms of crude drugs, *as usually prepared*. The fact remains that drugs carefully prepared, with due precautions as to both material and manufacture, and then systematically "proved" on a sufficient number and variety of healthy individuals, do unquestionably develop, with unfailing regularity, certain characteristic symptoms which may fairly be considered their physiological action. It may not be scientifically exact, but as these keynote symptoms occur so regularly in all provings of the same drug, it is sufficiently accurate for practical purposes. Let us grant that similar careful provings of all the "active principles," tested separately, would be an even greater desideratum and still more accurate. But such careful and extended provings of all the active principles have not yet been made.

Moreover, this objection really holds with reference to the prescribing of more than one of the active principles themselves at the same time; for granted that you may know what the physiological effects of each of, say, four drugs are, given alone, you do not know certainly what the physiological effect of their *combination* may be. You may think that each drug will preserve and develop its own special physiological effect, though given along with other drugs having different properties; but you do not *know* this, with scientific accuracy. So the same objection, if valid, holds with reference to even the alkaloids, when two or more are prescribed, as is usually the case, at the same time.

To return to my contention, however, that CLINICAL MEDICINE, and its editor, is teaching much straight homeopathy, is strenuously urging many principles long taught in this school, and is even claiming as new discoveries many truths first proclaimed long ago by the truly great scientist, Samuel Hahnemann, and his devoted followers.

Let me illustrate: For years past we have heard and read a great deal from the alkaloidal school and its literature of the great virtues of aconitine as a febrifuge. This has been widely heralded as a new discovery, a great advance on the older therapeutics. No doubt it is a great advance on the older therapeutics of the dominant school of medicine of, say, thirty years ago. But to whom is the credit due, and who made the discovery? Anybody at all familiar with the history and principles of homeopathy knows that almost from the very birth of this new therapeutic system aconite has been proclaimed and

used as a sheet-anchor in sthenic fevers. Its pathogenesis, as indicated in its provings, develops a perfect picture of sthenic fever—flushed face, rapid, bounding pulse, thirst, restlessness, anxiety—all the usual accompaniments of a frank and acute fever. The homeopathic school has been teaching for a century the very truth that the alkaloidists have been so loudly and zealously proclaiming as a new discovery. Why not give the credit to whom it is due?

What is true of aconite, or aconitine if you please, is true of many other active principles. *They are prescribed by our alkaloidal brothers on homeopathic indications.* In fact a good homeopathist feels quite at home in reading the alkaloidal literature and the indications for the remedies there given. Very largely the indications are almost identical with those found in standard homeopathic publications for the last fifty years. Aconite, or aconitine, if you prefer, *is* one of the greatest febrifuges we possess, and a sheet-anchor in the beginning of all *acute sthenic* fevers. But the alkaloidal school wasn't the first to make this discovery. Their "new discovery" is a *re-discovery* of an old truth first taught by Samuel Hahnemann. And every time our alkaloidal friends prescribe aconitine in small and frequently repeated doses for such fevers they are prescribing homeopathically, whether they recognize it or not.

And so we might go through the whole list. Who taught our alkaloidal confrères the value of bryonia, or bryonin, in inflammations of *serous* membranes? Reading the indications for bryonin in the alkaloidal textbooks, a homeopathic practitioner might think he was reading from a recognized homeopathic materia medica, so nearly identical are they. The point is here: bryonin, as prescribed and used by our "active-principle" friends, is prescribed *homeopathically.* The *principle* on which it is given is homeopathic. Why not give the credit where it is due? Why not recognize that the homeopaths were the first ones to systematically "prove" bryonia, discover its physiological action and point out the indications for its use therapeutically? (The question of *dose* is entirely a side issue. We heartily believe in "the smallest possible quantity to produce a desired result.")

So it is with many other drugs. The indications for their use, as given in alkaloidal literature, are so nearly identical with those long described in homeopathic textbooks—without any credit being given—that one is sometimes tempted to think they have been transferred bodily. Times without number I find aconitine, atropine, bryonin, berberine, caulophyllin, cicutine, emetine, glonoin, helenin, gelseminine, hydrastine, phytolaccin, sanguinarine, and many other active principles prescribed *on purely homeopathic indications.* We have no quarrel with our alkaloidal friends for doing this—on the contrary, we think them very sensible; but why not give the credit for "proving" these drugs and pointing out the indications for their use *therapeutically* to those pioneers of scientific therapy who first taught these principles? If a drug, tincture dilution, or active principle, is prescribed homeopathically, why not admit it and recognize the truth of the principle? What's in a name? I care nothing more for a mere name, Mr. Editor, than do you. It's the truth we are after, from whatever source and by whomsoever spoken. Only we like to see fair play and the "square deal," in which we gladly admit the editor of CLINICAL MEDICINE also undoubtedly believes and generally practises. But in this one respect we can't help feeling that he has not yet been wholly set free from the shackles of prejudice.

There, Doctor, I have "talked back" at you at much greater length than I intended, but I don't see how I could have made it shorter and been "delivered" of what was on my mind. The "kick" has been delivered gently and with the greatest admiration of and good will toward you and your work. It is the first time I have been guilty of taking this privilege, and as I said, you yourself invited it!

You have got the two things you say you like above all others: "One is that a man should write and tell the editor he is pleased, and the other that a man should give him a good 'cussing'." Well, we are certainly

pleased with THE AMERICAN JOURNAL OF CLINICAL MEDICINE, its editor, its platform, and its teaching; we have also "cussed" a little at him, perhaps "stepped on his corns," and maybe will get "licked" in return. After all, what does it matter so that we are all honest in our convictions, desiring only to know and act the truth, honestly seeking by the best methods known to us to cure the sick, "*cito, tuto et jucunde*," and keeping an open mind for new light, a liberal spirit toward our fellow practitioners, and charity for all? And, so, farewell.

CALDWELL MORRISON.

Newark, N. J.

[This letter is so admirable in text and in spirit that we present it word for word, as received from the writer, with an apology for holding it a long time before printing. If all homeopathists had been animated by a similar spirit, there never would have been a separatists school; there would be none now.

In regard to the matter in question, however, the difference between us lies solely in the point of view. Our correspondent, familiar with the application of the remedies which he mentions, as laid down by homeopathic rules, notes that we employ the same remedies for the same indications, and comes to the conclusion that we clipped these indications bodily from homeopathic works. In this he is mistaken. So far as we know, not a solitary indication for the use of a solitary medicine in our list was taken, and certainly not by us, from any homeopathic work. We arrived at the indications we give from observations of the action of these medicines when applied clinically. The first hint for the application may have come from any source whatsoever. Some came from physiologic experimentation, many came from accidental applications of the drug, and it is possible that at second or twenty-second hand some of these indications may have originated with the homeopathist, have wandered into medical literature through devious ways, and when they came to us their original source was totally lost sight of.

But the most important matter is that we, working from the one standpoint, and the homeopathist working from another, a totally different one, should have in so many cases arrived at the same conclusions. This is a proof of the correctness of the work of both, and may well give each more confidence in the conclusions reached by the other.

For ourselves, I believe we are as free from prejudice as it lies in mortal man to be. We have against homeopathy none whatever. Frankly, we do not believe in the application of infinitesimal doses. Nevertheless we are quite aware that our own knowledge does not comprise the universe, and the very remarkable paper presented by Prof. Mays in *The Boston Medical & Surgical Journal*, some time ago, went far to arouse in our minds the suspicion that possibly there might be more in small doses than we ourselves knew. But our own work has been with drugs in ponderable doses, those sufficient to influence the bodily functions in an unmistakable manner.

Our position in regard to homeopathy is the same as it is toward eclecticism. We believe that the day for separate schools is past, that all branches of the profession have so far progressed that the points at issue are not now sufficient to justify separatism.

We believe that every homeopathist and eclectic should join the American Medical Association and its branches, retaining his full liberty as to belief and to practice while so doing. Since the head of the American Medical Association is an ex-homeopathist, it certainly looks as if any fears of such affiliation on the part of these gentlemen are trivial and unworthy of consideration.

We believe that every college belonging to these sects should become regular. At the same time we would advise each of the schools to maintain its own organization, in order that the special studies which they have carried on should be continued and developed to the utmost of their possibility for good. Further, we would suggest that in these colleges a chair should be endowed for teaching the special tenets and principles of the school, that that work also should be

kept alive to the utmost possibility of its usefulness.

Were this done, a good deal of the force expended in fighting each other could be diverted to the general defense of the profession at large. Each of these three schools demands of candidates desiring to enter the profession a full four, or more, years' course of medical instruction. Our common enemy is the party who wishes to enter the practice of medicine without such a course of instruction as would fit him to safely practise it; and were the three schools united, our opposition would be much more effective than it is at present. Now, under the wing of the really educated eclectic and homeopathist, a multitude of pretenders ride into legal safety within the ranks of medicine.

This is our individual position. We are well aware that in thus stating it we are occupying the pleasing position of the man who interferes in a fight between husband and wife, and that we are tolerably certain to receive the blows from both parties. The extremists are never willing to concede anything whatever of good to their antagonist. However, the personal matter has never influenced us in the slightest degree. We have endeavored faithfully to do what we thought to be right, and are content with that position.—Ed.]

DIFFICULTIES IN THE DIAGNOSIS OF SCARLATINA

The consideration of scarlatina in the September number of Clinical Medicine fairly covers simple, uncomplicated cases of the disease as seen in private practice.

The real danger, however, lies chiefly in the complications and sequelæ. The most important of these are otitis and acute nephritis. To the first of these a large proportion of the deaf and dumb may ascribe their misfortunes; the second often steals upon the victim so insidiously that life is not infrequently sacrificed. They will occur under the best-known treatment, but even so, there is no excuse for any neglect on the part of the attending physician.

When scarlatina makes its appearance in private families, there is no need of undue haste in reaching a definite diagnosis. If not positive on the first visit, or the first day, a delay of a day or two will work no great harm. But when the disease appears in institutions where there is a large number of children, the problem of diagnosis may become a decidedly difficult one; and here it is essential that the diagnosis be made promptly and correctly.

Some observations upon a recent outbreak in an institution in this city will probably best illustrate my meaning.

In the home in question are housed some 350 children, from two to twelve years of age, about equally divided between the sexes. In passing, I may say that I have looked after the children of this home every alternate month for more than thirty-seven years. In all that time we have had but a single epidemic of scarlatina, which was about twenty-five years ago, when we had seventy or eighty cases, but none terminating in death.

In the latter part of June last a number of these children attended a picnic with children from a church Sunday school. A violent storm arose, and all the children, wet and perspiring, were huddled together in a small railroad station. In due time scarlatina, measles and diphtheria developed among the home-children. The promiscuous mingling with outsiders, under the favoring conditions, rendered the contracting of contagion possible if not even probable.

As a result we have had 67 cases of measles, 15 of scarlatina, and 2 of diphtheria. Perhaps I should say one of diphtheria and one of croup. The New York Board of Health considers croup and diphtheria identical. Pathologically it may be so, but surely there is a clinical difference. I have never known a case where true croup was contracted from another person, but, of course, I can not say the same of diphtheria. In this home we have three hospital wards, and three quarantine rooms.

The obvious thing to do was to place the scarlatina patients in one ward, the measles

in another, and doubtful cases in quarantine. Easily said, but not so easily done. If all the cases were typical and the diagnosis instant, the assignment would be easy. But such was not the case.

Suppose that on some morning we find four children ailing with somewhat similar symptoms: fever, headache, gastrointestinal disturbance and indefinite malaise. No positive diagnosis possible. If there be vomiting, we may suspect scarlatina. We look at the roof of the mouth, in front of the uvula, for the earliest eruptions of measles. Rubella may still further complicate diagnosis.

After a day or two our cases clear up. One has scarlatina, one measles, and the other two only gastrointestinal disturbance; but all have been exposed to contagion, necessitating quarantine for two or three weeks longer. If each is assigned to a separate room and day after day new cases appear, with a separate nurse for each, the resources and limitations of any ordinary institution will soon be exhausted. In private families diagnosis can wait; here it cannot. If the two ailing children be sent to their dormitories, there is strong possibility that should they have contracted scarlatina or measles, they will expose numbers of their associates. So, the further we proceed, the more complicated the problem of segregation becomes.

It might be supposed that charts of skin diseases, published at considerable cost, might be of some service. But they give only typical forms of eruptive diseases concerning which no tyro in medicine need be at fault. It is the atypical, irregular forms that are puzzling. These are not imaginary situations. They have occurred and will occur whenever two or more contagious eruptive diseases invade large institutions at the same time.

Those of limited experience may think that there should be no great difficulty in distinguishing scarlatina from measles. It should be remembered that a little more than one hundred years ago the two diseases were not differentiated but were classed as one—measles.

William Moss, surgeon, in his essay on the diseases of children published in London, in 1781, devotes some fourteen pages to measles, but says not a word about scarlet-fever. A few years later the impression gained ground that there was a form of measles differing essentially from the accepted type. Some textbooks devoted a few lines only to this peculiar form, which was termed "the scarlet fever."

How difficult, if not impossible, it is to make an off-hand diagnosis, may be illustrated by a single case.

A boy nine years old was seen by my associate, Dr. Roger Durham, and his trouble diagnosed as measles. This was confirmed by the chief diagnostician of the Health Department. The boy was sent to the measles-ward. A few days later the symptoms were indicative of scarlatina. The complications and the most pronounced and prolonged desquamation showed that it was an undoubted case of scarlatina. Then all the children in the measles-ward were exposed directly to this case of scarlatina, as well as indirectly through the attending nurses. There were three cases with a similar history.

And right here arises an important question. Is it possible for a child to have both scarlatina and measles at the same time? As the result of somewhat extended observation, I am of the opinion that the two diseases may occur *pari passu* in the same child, and that the sequelæ of the two may sometimes be clearly discerned.

BENJAMIN EDSON.

Brooklyn, N. Y.

[Dr. Edson certainly raises an interesting question, in the last paragraph of his interesting paper, a question which some of our readers may be able to answer.—ED.]

POTASSIUM PERMANGANATE AND OTHER REMEDIES FOR IVY POISON

On page 1011 of the September CLINICAL MEDICINE I notice that for ivy poisoning Dr. Turman recommends very highly a local application of spirit of nitrous ether.

A remedy far ahead of this and very well known to most physicians is a solution of potassium permanganate applied locally to the affected parts. This preparation, as we know, is an antidote to snake bites and the bites and stings of various venomous insects and reptiles, as well as to morphine and other vegetable poisons. I don't believe there is any drug that is superior or even equal to a solution of potassium permanganate as a local application in cases of rhus poisoning.

Recently the local application of quinine sulphate has been recommended as a specific for rhus poisoning, but it does not give good results in my cases. I find a solution of salicylic acid in glycerin and water, or a bichloride of mercury solution applied locally, far superior to the applications of quinine or spirit of nitrous ether.

JOHN ALBERT BURNETT.

Gans, Okla.

RHUS POISONING: STUBBORN CASE CURED WITH QUININE

Contact with either poison-ivy or poison-sumac caused, at first, slight redness on the forehead where the hatband rubbed, gradually extending to hands and arms and then to the face, and finally to practically all over the body. Itching was intense—so much so that opiates had to be used to make it endurable. Internal medication consisted of calomel, podophyllin and bilein, followed the next morning with a laxative saline flush. Echinacea was taken during the entire course of the attack.

The following remedies were employed externally without the slightest benefit in any way, shape or form: spirit of nitrous ether, lead acetate in alcohol, copper sulphate, sodium hyposulphite, echinacea, grindelia, beside several others. The solutions were applied freely, faithfully, continuously, and as scientifically as possible, but without affording the slightest relief, the condition, on the contrary, gradually becoming worse. Itching continued very severe; nerve reaction almost to the point of nervous prostration.

As a last resort, a solution of quinine sulphate, in the proportion of 1 ounce to 8 ounces of water, applied locally, was found to be the treatment necessary. Within five minutes after the first application the patient fell into a sleep and had the first rest possible to secure in eight days, a complete cure quickly resulting. The affected skin, it may be stated, very soon took on a dry appearance followed by abundant exfoliation.

This quinine treatment is certainly to be recommended, at least after the ordinary treatments seem to be wholly without any value.

C. W. CASPER.

Marshall, Mich.

[The literature on the treatment of dermatitis venenata is as extensive as it is contradictory, and the two foregoing interesting and welcome communications are no exception to the rule of disagreement. Seemingly there are involved factors that require more careful investigation and differentiation, such, for instance, as the particular species of venenous plant involved, the age and condition of the individual affected, the treatments tried before the physician is consulted, and most important, perhaps, the stage in which a given agent is being employed, a given remedy being conceivably helpful only at some particular period, while, possibly, even positively harmful at another.

One thing seems certain: inasmuch as the peculiar venenous principle of the plants is now agreed to be an alcohol-soluble fatty body (toxicodendrol) closely allied to the acrid cardol, the mechanical removal of this offending substance is the first and most rational indication. This is where alcoholic solutions, spirit of nitrous ether, as possibly also alkaline lotions, come into play; only that it is not enough (maybe even directly harmful by spreading the poison) merely to cover the inflamed portions with the lotion, but the skin must carefully be rubbed or wiped off with frequently renewed wads of cotton wet with the solvent. This probably is where every experimenter thus far has sinned.

In this light we also see how the noxious irritant may be conveyed, by fingers and dressings, all over the body. Remembering the fatty nature of toxicodendrol, it also becomes plain that the poison is not wafted about by the breezes but must be conveyed direct or else by contact with person or articles that rubbed against the plant—this affording a rational explanation of the case, some time ago reported in these columns, where a man was sure he had twice suffered ivy poisoning by skinning hares, the latter presumably (granting the diagnosis) having lain on the poison-shrub, the venom adhering to their pelts.

While the season, at least in the northerly latitudes, is past, a few of the more promising, but not so often named, remedies may briefly be called to mind in this connection, for future reference, viz.:

Hydrogen-peroxide solution; as a first measure, to sponge off the skin, preferably after an alcohol wash. Then dress with carbolized magnesium-sulphate solution. Guaiacol is sedative and anti-inflammatory. Calcium sulphide in strong solution; and also internally. Black wash, yellow wash, and some recommend a weak solution of mercuric chloride, frequently daubed on for a few minutes at a time. For the later stages some advise thymol iodide, ichthyol, or the latter in combination with resorcin and petrolatum. Finally, we quote Dr. M. E. Johnson of Pittsburg, who says the following will cure every time, be the victim a socialist or Christian scientist, maharaja, clubfoot, reformed Fletcherite, or what you will. This is the magic arcanum:

"A strong solution of sodium salicylate, borax, fluid extract of hydrastis in water, used in a wash twice a day and followed each time with an ointment composed of acetanilid and white petrolatum applied freely will promptly cure every case of ivy poisoning."

In conclusion it may be stated that a symposium on this subject, to which thirty-two physicians contributed, appeared in "American Alkalometry," volume iii (1900-1901), page 657 *et seq.*, a few bound copies of which can yet be supplied. Price $2.00 each, or $7.00 for the four of the series.—Ed.]

FOR EARACHE

There are formulas without number—books of them—but one tried and proven by years of use is worth a hundred taken at random. Every doctor has a favorite or two, possibly evolved from experience or maybe handed down by a preceptor or a father, be it for an ointment, a liniment, a pill, a throat swab, a toilet preparation, or something else.

Here is a useful one for earache. Glycerin is far better for the ear than an oil, being more penetrating and, quite important, easily washed out.

Menthol	grs. 20
Camphor	grs. 20
Phenol	gtts. 15
Glycerin	oz. 1

Label: Warm ten drops in a spoon and pour into ear.

S. H. Snow.

Washington, Kan.

WHO MAKES YOUR MEDICINE? AN ANSWER

Every physician in this country should read the leaflet of the N. A. R. D., reproduced on page 991 (October issue) of this journal. It is worthy of consideration, since it is such an insult to the skill and intelligence of the medical men. It is to be hoped that someone will give a public reply that will end this sort of work on the part of some few of an honorable set of men. Meanwhile, the thoughts that came to me on reading this article may be of service to others who may be asked questions by patients and friends.

Danger of taking medicines not made by experienced druggists.—If this is a real danger, why do the druggists not make the medicines which they sell? Why do they buy their fluid extracts from the manufacturing houses and prepare tinctures and other galenicals from them? If it is wrong for the physician to dispense medicines

that he buys, it is certainly wrong for the druggist to do the same thing. The mixing of ready prepared drugs can not be construed to mean the making of a medicine.

Physicians not fitted to give medicine.—Can anyone show, to a fair-minded judge, why the person who writes the directions for compounding a medicine is not as competent to carry out his own directions as anyone else? I think not.

The statement is made that this power should never have been given to the profession. The writer of the leaflet must know as well as we do that this power never has been *given* to the profession—it has always belonged to it. Our early predecessors gathered the herbs, dried them, and made their own preparations. Later they employed assistants who did this work under the immediate supervision of the physician himself. It is from these assistants that the druggists are descended. Now they are arrogating as a right that which was given to them merely as a matter of convenience; and they are now assuming to dictate to the ones who must be the judges, not only what they shall use, but how they shall use it.

You get poor medicine.—Of course the druggist never uses inferior drugs! Of course he never buys in bulk from the wholesaler, taking just what may be sent, and that usually the cheapest! Of course he never uses any preparation without testing it for strength and purity! Of course he never buys from any but reliable houses! Of course, when offered two similar articles, he never takes the cheaper! Of course he never considers the amount of money to be made! But since the druggist can not even be suspected of doing these things, there is nothing to be said under this head.

The druggist sure to correct physician's mistake.—The druggist never makes mistakes—of course not. The prescription read:

Atropini sulphatis .....grs. 2
Aquæ dest., q. s. ad.....oz. 1

Since mistakes are never made by druggists, we must conclude that "Aquæ dest." signifies alcohol; how else could alcohol have been used in place of water, causing considerable pain to the patient who had been instructed to drop the solution into his eyes? Of course it was not a mistake when the druggist pasted the eye-drop label on a small bottle of medicine intended for a weak stomach, and handed it to the oculist's patient. I have never heard what became of the atropine solution.

The public is called upon to decide to whom its patronage is to be given. It seems to be making its decision, and this decision is in the favor of the physician who supplies medicine at the instant needed and against the men who write prescriptions, for which the patient must often go some distance and pay a round price.

In this connection some other things naturally come to mind. For instance: A certain druggist examined the urine of a man who was under treatment at the time and told him that it contained five percent of sugar. The druggist also recommended that the man give up his physician and take some medicine which he would prepare. The peculiar part of this is that a careful examination of the urine, by the physician and by a chemist (not a druggist), failed to show the slightest trace of sugar.

I would like to call the attention of the writer of this leaflet, and of those who circulate it, to an old saying: He who lives in a glass house should pull down the blinds.

In conclusion, I wish to add that nothing I have said is intended to reflect on the druggists of the town in which I am located. They are a fine set of men, and, so far as I know, are dealing squarely with the doctors.

C. O. SOUTHARD.

Berkeley, Cal.

"SOME DOCTORS OF FICTION"

I am sure that there will be thousands of readers of the medical journals who will be pleased to welcome Dr. George Thomas Palmer, formerly editor of *The Chicago Clinic and Pure Water Journal*, back into the family of medical writers. He has prepared a series of articles on "Some Doctors of Fiction," which will appear from month

to month in *The Medical Brief*, beginning with the issue of October, 1910. Those of us who have already had a taste of his work, in the old *Chicago Clinic*, in which a couple of years ago he gave a discerning, witty and thoroughly interesting essay or two on some of these "doctors of fiction," will be prepared for a feast. We congratulate the *Brief* on securing this series. We shall hope to see it ultimately in book form.

The *Brief* is growing better all the time. Dr. Atkinson has breathed into it a living personality. It is now as scholarly as it is interesting; and it is the best evidence of the skill of the new editor that he has made it scholarly without taking out of it the human interest which was so characteristic of it in the old Lawrence days. *Crescat!*

DR. BETTERMAN'S "LETTERS"

I have read with pleasure your warm editorial on "The Letters of Old Dr. Betterman," in your September issue.

These letters, which have appeared serially in *The Office Practitioner* during the past year, have elicited so much favorable comment, and so many requests for the entire set, that I have arranged with the author, Dr. C. E. Blanchard, to publish them in book form.

In order to "round them out" several "Letters" have been added to those which have already appeared, together with an introduction and a chapter on the closing scenes of the life of that unique type of the old-school physician so beautifully portrayed in the character and writings of Dr. Betterman.

The book is now in press and will be ready for delivery about October 10. A popular edition, in art-poster binding, will sell at 75 cents per copy; a de luxe edition, in leather binding, will sell at $1.25. Details will be given later.

In view of your favorable opinion of these "Letters," I believe you will be glad to make this announcement to your many readers.

J. D. ALBRIGHT.

Philadelphia, Pa.

[We print our friend Albright's letter just as received, believing that it will explain our position in the matter quite as well as anything we might say. We shall be pleased to receive orders for this book any time, delivery to be made as soon as we receive our first shipment. We predict a large sale for it, as it surely deserves.—ED.]

THE LATEST HEALTH FAD!!!

During the last few months there has been a noticeable lack of new and startling discoveries for the radical cure of our physical ailments. No new Elijah, with healing in his wings or voice, has proclaimed his magical and miraculous power over disease, death and the grave. No retired clergyman or returned missionary from the Cannibal Islands or the Modoc Indians has announced any new secret discovery of a concoction of roots and herbs and rattlesnake fangs, warranted to restore to us the pristine vigor of the native aborigines, Dowieism, Schraderism and like isms by the score, including the semiethical Emmanuel Movement, have gone into President Cleveland's "innocuous desuetude." Even Peruna has failed to compass the full intentment of its preposterous claims and predictions. Wonderful cure-alls and marvelous discoveries have lost their savor, their virtues and their potency, and are being sold at "cut-rate" at the drug-stores and for five cents at public auctions.

Thus the dear afflicted people with their cultivated appetites and abnormal cravings for the flesh-pots of Egypt, for sensational supernatural cures, in their distress and extremity and utter demoralization are demanding relief and succor, and in order to find it are chasing and hiking hither and yon after that delusive *ignis fatuus*, the vanishing mirage called "health," from the rivers to the end of the earth, and from Dan to Beersheba, unmindful of the fact that

Health's too much for mortal quiz,
Pulseless sage or saint;
The very place you'd swear it is
That's the place it ain't.
Folks from Maine to Texas go
Hunting it in vain;
Texans looking for its glow
Hustle back to Maine.

Thus the dear people, perishing from therapeutic nihilism, famishing on suggestive therapeutics, and dying from imaginary diseases voice an irresistible appeal, a universal demand, that this unsatiable thirst, this aching void, be filled. But by whom? and by what? By the unscrupulous mercenary nostrum vender who would grow rich upon their afflictions? Not on your life!

As a humble member of the medical profession, the ultimate aim of which has ever been the eradication of disease and suffering and the protection of the people, I can announce with pleasure and confidence that there is still a balm in Gilead, that there is a safe and sane, a rational, substantial and purely ethical health restorer, a product of nature's own laboratory, rural, urban and cosmopolitan.

A decoction or tea made from the alfalfa plant, properly seasoned with cream and sugar, or, if preferred, a little lemon, and taken by the small glassful during the day at regular intervals, is the most nourishing, nerve-building, fat-producing, muscle-strengthening, in fact, the most refreshing product of the materia medica. It is said to be mildly laxative, an aid to digestion and a great blood producer. Here is a remedy that has successfully passed the stage of empiricism and has stood the most critical and searching test upon the lower animals ever conducted; and when it came to the supreme clinical test—impartial and thorough—its glory was not diminished or its virtues beclouded. Testimonies as to its virtues come not from fictitious pictures or more unscrupulous statements, but from the whole family of lower animals that have been fed and nourished upon it. You cannot help but admire the fat, sleek and healthy prancing horse, the corpulent cow, or close your ears to the satisfied and contented grunt of the hog, too fat and lazy to rise from feasting upon this succulent food while her numerous offspring, chubby dumplings that they are, gambol about her in the enjoyment of supreme health and happiness. These are testimonies that cannot be gainsaid.

Oh, ye poor, skinny spinster, quaff this elixir and become robust, rotund and rosy. And you, ye health chasers, who have lost your health in Ohio and are foolishly and vainly searching for it in California, use a little of the twentieth-century revised version of Christian science, get an Emmanuel movement upon you, hustle back to the place you lost it, and hike away to the alfalfa fields (barefooted if you will) and partake of this exhilarating protein compound, the beverage that cheers but will not inebriate. Get its sunshine in your soul, its radiance in your heart, its bloom upon your cheek, its sparkle in your eye, and its elastic spring in your step.

You don't have to make a decoction of the advertisements of this remedy and drink them to get results. It is sufficient unto itself. It is pleasant, healthful, harmless, inexpensive; the poor man's friend and the rich man's benefactor. It is precious, plentiful and priceless. It is a life-saver, money-saver, trust-buster.

All flesh is grass. Get back to nature. Emulate the example of your illustrious ancestor, Nebuchadnezzar, and eat grass. And then from out the deeper recesses of your healthy soul and the peaceful melody of your heart you can carol with the birds the joyful refrain—

"Al-fal-fa-la-fal-fal-fa-la!"

David E. Spahr.

Xenia, Ohio.

FIVE CASES OF PELLAGRA OCCURRING IN ONE FAMILY

Mrs. C., white, age 31, native of Mississippi; began menstrual period at fourteen years of age; mother of six living children (all girls) history of several miscarriages. Father living, age 77, health good; mother dead in menopause (uterine carcinoma). Removed to Wilson, La., two years ago.

She enjoyed good health until Aug. 18, 1909. Present illness began with malaise, some slight febrile reaction covering several weeks. Oct. 8 she began flooding (menorrhagia or metrorrhagia), which continued interruptedly until Oct. 18. When this was checked amenorrhea followed, which has persisted. March 22, 1910, an erythematous

eruption appeared upon the back of each hand. This was mistaken for sunburn, but within ten days it deepened in color and vesiculated; upon rupture of vesicles a raw base was presented. There was little actual pain, but an intense burning, itching sensation, which upon scratching, rubbing, etc., has caused considerable destruction of tissue. The skin lesion has extended about two and a half inches up the forearm from the wrist.

April 15 the gastrointestinal symptoms, i. e., diarrhea and stomatitis, became pronounced, the bowels moving six or eight times during the night. There is coincident mental involvement, a mixture of idiocy and insanity shown by the characteristic facies, with delusions, hallucinations, etc. The latter are getting more frequent. Cachexia is profound.

Case 2. Aurelia C., age eight and one-half, daughter of the preceding. Previously healthy. None of the diseases of childhood. Eruption first noticed on April 9. Lesion began on feet, extends up leg to the junction of the middle and lower third. Lesion on hands quite marked, but not so pronounced as in Case 1. Gastrointestinal symptoms are absent in this case, probably owing to recent infection.

Case 3. Lillian C., age six and a half. Previously good health. Eruption first noticed about April 1. Lesion on feet and extending to junction of middle and lower third of leg. Eruption on hands not so marked, but plainly visible. Gastrointestinal symptoms absent.

Cases 4 and 5 are in the earliest stages of the disease. Symptoms easily recognized, but not marked as in preceding cases.

With one exception, all of these patients presented unmistakable evidences of the disease. The mother alone presented gastrointestinal and mental symptoms.

We elicited the information that the entire group lived upon cornmeal for prolonged periods, and that the meal was always of an inferior quality, occasionally musty. The possibilities of the transmission of the disease from one to another must be considered. All occupied the same apartment, perhaps the same bed, used the same washbasin and towel, and were in almost constant and intimate contact. The interval between the appearance of the disease in the mother and its occurrence in the childdren strengthens the theory of transmission by contagion.

In view of the fact that the etiology of pellagra is still obscure, it seems to us that some definite plan should be inaugurated for the segregation and care of these unfortunates

W. A. Kellogg
W. B. Singletary

Wilson, La.

HONORS IN THE RIGHT PLACE

We are always glad when a doctor gets the honors which he deserves—especially glad when that doctor happens to be a member of the "family." We therefore take special pleasure in extending our congratulations to Dr. C. S. Scofield of Richford, Vermont, who has just been elected to the legislature, from his town, by a handsome majority. We advise other doctors to "go and do likewise."

AN EXPERIENCE WITH THE PNEUMONIA OF OLD AGE

Mrs. A., age 72 years, on March 17, after working in a freshly ploughed garden, had a chill followed by high fever, cough, thoracic pain, and dyspnea. The chill lasted about two hours. I saw the patient two hours later and found the following conditions present:

Temperature 104° F., pulse 110, respiration, 32; skin hot and dry; tongue coated; dry hacking cough, she complained of pain in the right side and of headache.

The physical signs were those of an acute bronchitis. The respiratory sounds were harsh, expiration lengthened. The right lung was full of sibilant and sonorous râles, with a few fine crepitations at the base; a few sonorous râles in the left lung.

A diagnosis of acute bronchitis was made and the following treatment instituted: Calomel and podophyllin were given in divided doses, followed by epsom salt to evacuate the bowels freely. Aconitine, atro-

pine, digitalin, and cactin were administered to reduce the fever and control the circulation and the skin sponged with tepid water while cloths wet in ice-water were applied to the head. Emetin, calx iodata and small doses of codeine were employed to facilitate expectoration and relieve the distressing cough and pain in the side. Sulphocarbolates and nuclein were given in appropriate doses.

During the following twenty-four hours the temperature dropped to 100° F., pulse to 90 and respiration to 24. Expectoration became free though slightly blood-stained, and she was free from pain; the bowels were freely open and the general condition greatly improved. I continued emetin and calcidin, and added the arsenates of iron, quinine and strychnine to the nuclein and sulphocarbolates. During the next twelve hours the temperature dropped to normal, the lung became free from râles and the general condition good.

Twelve hours later she had a severe rigor lasting about an hour, with elevation of temperature, a return of the pain in side, dry, distressing cough, and muttering delirium. Upon examination I found both right and left lungs involved in a catarrhal inflammation, the right more so than the left. She was conscious at times, and when so, complained of intense headache, diffuse pain in the right side, and pain across the lumbar region and at the neck of the bladder.

During the next five days the bowels were obstinately constipated and tympanites was marked. On the seventh day of the disease the kidneys were acting very sluggishly, urine high-colored and offensive. Delirium marked, respiration shallow, labored, and at times with a suggestion of the Cheyne-Stokes type. Pulse 110, weak, irregular and intermittent. I was unable to detect the apex-beat at times. During the next three days delirium continued, expectoration was slight and blood-stained, cough distressing, face cyanosed, respirations varying from 40 to 50 a minute; breathing was interfered with by the gaseous distention of the bowels. Pulse varied from 110 to 130, and at times I was unable to detect the radial pulse. Kidneys acting scantily; incontinence of bladder and bowel.

During the next twenty-four hours there was slight improvement in the general condition. Delirium not so marked, expectoration more free, lungs clearing rapidly. During the next three days gradual improvement in general condition. Mental condition good. Temperature, pulse and respiration resumed their normal condition. Bowels and kidneys acting freely. Free expectoration. Convalescence established about fifteen days after beginning of the pneumonia.

Treatment was as follows: Initial purge of calomel and podophyllin, followed by magnesium sulphate. Sulphocarbolates of zinc, sodium and calcium throughout the course of the disease. Aconitine, strychnine, digitalin and cactin, with tepid water sponges to control temperature. Digitalin, atropine, strychnine and sparteine were given to support the heart. Nuclein, by the mouth throughout, and hypodermically with digitalin. Strychnine, strophanthin and camphorated oil at irregular intervals (when heart showed great distress). Arbutin and barosmin were given for the renal inactivity and with good results. Emetin, calcidin and sanguinarine nitrate were given as expectorants. Tepid water sponges seemed to relieve the delirium better than anything else. Chicken broth, beef extract, albumen water, whisky and egg, given at regular intervals and carefully regulated constituted the chief nourishment.

Convalescence is now well established, the lungs are entirely free from mucus, bowels and kidneys active, mental condition good, and she is gradually regaining her former strength and vigor.

The above case presents, in my opinion, quite an interesting study. The patient developed an acute bronchitis with an abatement of all symptoms, a second chill followed by a catarrhal inflammation of the right lung with a later involvement of the left, attended by active delirium, obstinate constipation and renal inactivity.

Such cases as the one here under consideration used to be the despair of the physician. Today we can hope for better

things—thanks to our modern rational treatment with the alkaloids.

R. K. Ogilvie.

Blodgett, Mo.

ACUTE TUBERCULOSIS, OR GALLOPING CONSUMPTION CURED BY BROMINE INHALATION

I first saw Mr. Mack Williams, age 21, from near Jonesboro, Arkansas (a region where consumption is common), on the 18th of June. His history was that three years ago he nearly died of pneumonia and malarial or "bilious" fever and thought he had "never entirely recovered through his chest" although he had "worked as usual and paid little attention to it." Late last fall he weighed 158 pounds—as much as ever in his life. He generally weighs most in winter. He took the grip in April and by about May 1 was too weak and sick to plow and work as he had been doing, and from that time went down till, as he afterward said, he knew he "must die right soon unless something was done."

He started for help and reached Eureka Springs, a stranger, thoroughly exhausted. When I first saw him he seemed to have absolutely given up all hope of recovery, and it is difficult to give you a picture of his stoop-shouldered, woe-begone appearance further than to say that he presented a typical one of advanced consumption. He was emaciated, very weak, there was severe and almost constant cough with most profuse expectoration of bloody mucus, with masses of green "sinkers." He had "sweats" night and day when asleep, and suffered from extreme anorexia; did not eat as much the entire first week as now at one meal.

Physical examination showed good build, weight 121 pounds (which in the next four days dropped to 117—the lowest he got). The entire right lung seemed "shot full" of disease and gave almost the entire range of adventitious sounds, from the metallic tinkle and whistle to the simpler mucous râle. The superior lobe of the left lung proved the most seriously affected; a cavity had formed in its lower border. He was going graveward "on a gallop." Pulse at first examination was 96, temperature 101° F.

I put him at once on the bromine inhalant, and realizing it was his only show and required quick work I made it three or four times as strong as usual and pushed it to the limit of producing acute irritation. To control the racking cough till the inhalant could get in its work, I gave a few doses of elixir of white pine and codeine. For "fever drops," to control fever and nervousness somewhat, I put 20 drops of combined specific tinctures of aconite and gelsemium in 4 ounces of water, giving one to two teaspoonfuls every hour or oftener, "to effect." I also gave tablespoonful doses of "metabolized cod-liver oil" thrice daily for a few days, then changed to "Angier's petroleum emulsion," same doses. As he loathed all food, I gave him for nourishment and general effect, at meal-times, two tablespoonfuls of good sweet oil with Abbott's digestive No. 2, which he forced down. He also ate a few raw and roasted peanuts, as he could.

His pulse ranged from 92 to 96 for four days. Temperature, same time, night and day from 101° to 101.6° F. On the fourth day of treatment, when the lungs were unloading most profusely from the action of the inhalant, the pulse went to 104. Temperature rose to 102° F. for part of a day—in spite of fever drops.

The "unloading" of the lungs continued in greatly increased quantity till the night of the fifth day, when it gradually lessened, as all bad symptoms till now there is little cough or "raising" except in the morning, some "clearing of the throat," etc. For the extreme debility I gave four tablets a day of triple arsenates with nuclein. The sweats stopped the first week. For this I had him sponged on alternate nights with solutions of epsom and common salts—but for all, his general condition was so bad, with weakness and hopelessness, I find entered in my note book on the 18th: "Prognosis doubtful." But there was no doubt among the inmates of two hotels adjoining the open porch on which he slept, whose rest was broken by his severe coughing and raising the first

three nights. All said he could not live and blamed me for not sending him to a dryer climate—for it was damp and rainy here nearly this entire time.

On the 22nd his father came, expecting to "take him home in a box." On the 25th he had a severe attack of pleurisy which we combated with dry heat, pressure to the side and chlorodyne granules, meantime keeping up the other treatment. On the 27th the pleurisy gave way and with it the lungs cleared of the accumulations of the previous two days, when expectoration was too painful. On the 28th my note book says: "Pulse 78, temperature 99° F., lungs nearly cleared and breathing good." Meantime his appetite had come back, reinforced, and he has since been gaining nearly a pound a day in weight, and all symptoms correspondingly improved.

During all this time I kept him practically out of doors night and day. At first, when too weak to sit up much, he lay on a bed in a corner room, high up between two windows whose lower sashes were up, "rain or shine," and at night he slept on an open porch except when very rainy

As his lungs unloaded, he complained of great pressure across his chest, which I met by forced expansion of sound lung tissue. From this he still suffers some, but there is every evidence of the cavity filling and healing. I still push the inhalant night and day and have done so from the first, more than I should have dared had he not been under my direct control.

After twenty-nine days of treatment, he eats, sleeps, breathes and feels good; weighs 133 pounds. I have been thus specific in the record of this case as I fully realize the criticisms likely to be passed by some in the profession who have not seen its course of progress—"mental reservations" on "errors of diagnosis," "fact and extent of infection" —but from more than thirty years' experience with this disease, and taking into full consideration its history and progress, it was a clear-cut case of what is known down here as "galloping consumption."

Fortunately, in this case the lesions were confined to the lungs where I could reach all fully with the bromine in the inhalant. I was able to kill the bacilli and clear out the infection, otherwise I am sure that in spite of all the out-of-door life and of improving the nutrition, I should have been like a hunter without a gun and my man would have been in his grave at least ten days.

Of course I don't *now* consider him entirely cured, although all symptoms, including temperature, the last certain sign, indicate the death of the bacilli and eradication of the infection. He will still take the inhalant and tonics and be under observation for probably another month, till he gets his usual weight and strength—then I shall advise a residence in a more favorable climate than his home, to lessen risk of reinfection, which would likely occur sooner or later should he go back to old conditions.

I realize also that it takes judgment and experience in dosing and regulating the amount of bromine in the inhalant from day to day as the case progresses, in addition to skilful management of the general nutrition, to get the full benefit of this remedy's possibilities; but so long as it is not given strong enough to "burn the throat" or cause acute inflammation and proper time is given between its applications for reaction and elimination of the diseased secretions from the lungs, there is no danger of its abuse. There is more danger of not giving it thoroughly enough to reach the remote recesses of the diseased lungs.

This case simply accentuates the fact which my experience of thirty years has proven, that with a reasonable chance this remedy is a very valuable one in tuberculosis when confined to the throat and lungs.

CHAS. E. DAVIS.

Eureka Springs, Ark.

TWO GOOD HINTS FROM IOWA DOCTORS

The doctors who give us these hints do not care to appear in print, but their suggestions will—for the good of the family.

In barber's itch and "jigger" bites try applications of tincture of iron chloride,

full strength. Our informant tells us that this will "knock" both of these troubles.

An application of silver-nitrate solution, 1-2 to 2 percent, is said to be effective in practically all forms of eczema.

Try 'em out and report.

GANGRENE OF THE LUNG TREATED WITH CROTALIN, WITH COMPLETE RECOVERY

Gangrene of the lung is a rare disease and when present is invariably a complication of some other preceding disease, such as pneumonia, emboli, bronchiectasis or pulmonary tuberculosis. The frequency with which it occurs may be judged by those who have the advantage of studying large numbers of hospital cases of pulmonary disease. Aubrecht found no gangrene of the lung in over 1500 cases of pneumonia, while others have found three in some 750 cases. From the figures at hand it would seem that the disease complicates pneumonia in about one out of 1000 cases. The mortality of pulmonary gangrene is high, being estimated at from 80 to 95 percent of deaths.

The therapeutic indications are vague. There has never been much that could be done medicinally, and surgery has not produced any startling results. The medication usually employed has consisted of inhalations of creosote and carbolic acid as disinfectants, and oxygen to supply the demand of the tissues. Other treatment has been mostly supportive and symptomatic. The surgeon will undertake to open the chest in cases where the diseased area is plainly near the surface, but even these cases do badly in the majority of instances.

The case which I am about to describe is interesting because of the exhibition of a comparatively new drug and of more importance from the fact of the patient's complete recovery. The following is the case, with a brief history prior to the time I was called to attend.

Mr. R., aged 61, family history negative, occupation merchant. On October 4, 1909, he had an attack of grip with typical symptoms, i. e., general muscular pain, high fever, etc. Two or three days later pneumonia developed and failed to resolve. It would appear that it was not a pneumococcic infection, but rather one with the influenza bacillus of Pfeiffer. As a result of the unresolved pneumonia, gangrene set in with all its characteristic symptoms of severe cough, stinking sputa and general exhaustion. From October 4 to December 20 the patient had called three physicians to attend him, and was seen by two prominent specialists from New York. All of these gave but one prognosis, namely, the man could not live.

On Dec. 20 I was called in to take charge of the case and found this man very much emaciated, face drawn, anxious expression, and delirious at times; pulse 118, temperature 102.5° F., respiration 42.

Examination of the chest showed dulness over the lower lobe of the right lung, and over same area auscultation revealed numerous large and small moist râles and breathing diminished over the area. General condition: exhausted, appetite *nil*, breathing short and catchy, talked with great difficulty, coughed constantly, with little expectoration; breath exceedingly foul. Heart action weak; second pulmonic sound accentuated; pulse soft, low tension. The odor in the room was putrid.

The above gives a fairly accurate picture of the case before me, and my own prognosis was not much better than that of those who had preceded me, though it was not announced.

The following treatment was instituted: Nourishment consisted of large amounts of eggs and milk added to general liquid diet and cereals. Cold fresh air was supplied from open windows and the room kept between 40° and 50° F. Medication consisted of stimulants, such as strychnine, whisky and brandy or wine, as indicated; glythol in emulsion of glycerin and 15 drops of creosote every three hours. Excessive cough was controlled by codeine.

On the first day I gave him 1-200 grain of crotalin hypodermically into the back of the arm, cautioning the nurse to watch for any redness or swelling of the part and to use

alcohol in form of wet compresses on its appearance. This was repeated every second day for the first week.

At the end of the first week, the pulse and temperature remained about the same, but the general condition was improved; appetite, respiration and mental condition showed marked change for the better. The cough was not so hard and expectoration was increased. During the following two weeks the respirations came down to 28 and 30 per minute, pulse 98 to 100, and temperature ranged from 101° to 102° F. in the evening with marked remissions in the morning. Expectoration increased in amount and was of a distinctly purulent character and very foul. During this same time, treatment was continued as above outlined. The injections of crotalin were continued every second day but increased to 1-100 grain each dose.

With the fourth week of this treatment, marked improvement came in every way. The most distressing symptom was the profuse expectoration of foul-smelling sputum, but as this was evidently the evacuation of broken-down material, it was looked on as a means toward the end desired, and the prognosis looked very much better. The temperature was gradually coming down and the patient showed some increase in strength. It was during the following week that the greatest improvement was noted. The temperature did not rise above 100° F., pulse was 96 and stronger; respirations deeper. The patient took more nourishment and acquired an interest in life. During this time he was allowed to sit up a part of the day. Expectoration grew less and the odor, which was gradually diminishing, had nearly disappeared.

During and after the sixth week the amount of crotalin was increased to 1-50 grain every second day. Improvement continued, the man began talking about going to his business and was anxious to get out of doors. He acquired an appetite and a more liberal diet was allowed. On Feb. 13 he was first allowed to go out and a week later he went to his place of business.

Recently seen at my office, he presented the appearance of robust old age. There was no cough, he had been putting on weight, and he assured me that he was as good as ever.

R. E. Kinloch.

Brooklyn, N. Y.

SUCCESSFUL MANAGEMENT OF TYPHOID FEVER

Despite the fact that my locks are *not* streaked with silver, no matter if I am one of the younger members of the family, I intend to "come across," as you term it, with an article on the treatment of typhoid fever. Perhaps some of the claims set forth below may be considered as radical or exaggerated, but I wish to state that the following is the routine treatment adopted at the hospital where I served as interne, and I invariably use it now in my practice and so know whereof I speak.

In treating typhoid fever the successful physician always keeps in mind the grandest of medical principles, namely, "clean out, clean up and keep clean." This is best effected by giving, as soon as the first manifestations appear, 1 or 2 grains of calomel in broken doses, followed two hours later by a stiff dose of saline laxative. This medication serves to clean out the alimentary tract, eliminates thousands of bacteria, and makes ready the intestinal mucosa for the next step, "keep clean"—which is readily accomplished by administering, every two hours, 10 grains of the intestinal antiseptics —the compound sulphocarbolates.

Concomitantly with the foregoing I give a mixture of salicylic acid, ammonium carbonate, and elixir of lactopeptine. Determine the amount of salicylic acid you desire to give (be it 5, 10 or 15 grains to the dram), dissolve the acid in the elixir of lactopeptine, and neutralize with the ammonium carbonate. Give of this one or two teaspoonfuls every one or two hours, according to the temperature.

That is all, with the exception of a buttermilk diet, and plenty of water.

Complications: Under the treatment outlined there are no complications, and what is more to the point, your patient will re

cover much sooner than in the time-honored twenty-eight days.

The salicylic acid is a good bactericide, an antifermentative, and helps to preserve the normal integrity of the intestines; the ammonium carbonate is a fine diffusable stimulant and alkali; the elixir of lactopeptine helps to digest any putrefying material that may happen to be in the alimentary canal.

Under this treatment the tongue cleans up and stays clean, the breath becomes odorless, the fever is promptly reduced, and before you are aware of it, you'll be fighting your patient to keep him from eating everything in sight. Try it, brethren.

"EMBRYO."

——, Illinois.

[The doctor has struck the *principle* which makes for success in typhoid fever, even though his application of that principle is somewhat different from our own. However, in the main we stand on common ground: we both believe in the imperativeness of a thorough "clean-out," and depend upon the sulphocarbolates for the "clean-up." These are the essentials, given a proper diet and good, sensible attention to symptomatic indications. ED.]

A SEWING-MACHINE REVOLUTION

We do not ordinarily undertake excursions into the realm of mechanics, but we have recently seen demonstrations of a new sewing machine (we think it is *new*) that have pleased us so much that we must say a word. This sewing machine is different from the ordinary kind in the fact that the operator sits *directly* behind the stitch line, instead of to one side. As a consequence, there is no leaning over to the left or right, with unnatural distortions and curvatures of the spine which must almost inevitably result when machines of the ordinary kind are used. This means, also, less fatigue to the woman operator—a very great factor when the machine is run hours at a stretch. It also means the reduction of eye-strain to a minimum.

In other words, this is really a "physiologic" sewing machine, providing (as I suppose is the case) that it approaches perfection in other respects also. This machine is made by The Standard Sewing Machine Company of Cleveland.

A WELL-DESERVED PROMOTION

We see by one of the Ionia newspapers that Dr. Otis Cope of Bancroft, Michigan, has taken up his residence in Ann Arbor, in order to assume the duties pertaining to the chair of physiology during the absence in Europe, in 1911, of Prof. Lombard.

We feel a personal interest in Dr. Cope. He is the son of our oldest and dear friend, Dr. C. S. Cope of Ionia, Michigan. If he is as good a man as his father, we know that he is absolutely all right. He is a scholarly man and bound to be a successful one, as this new promotion testifies. Our congratulations to both father and son.

THE "INDEX-LANCET"

We regret to learn that the Kansas City *Index-Lancet*, of which Dr. John Punton has so long been editor, has ceased to exist. However, we are pleased to know that it has been absorbed by *The Medical Herald* of St. Joseph, Missouri. This excellent publication, so ably managed by Dr. Charles Wood Fasset, will be strengthened by this consolidation. Our best wishes go to *The Herald*.

TINCTURE OF ACONITE AS FOUND IN KANSAS

One of our readers sends us a clipping from "Bulletin No. 8" of the State Board of Health of Kansas giving the result of investigations into the character and quality of the tincture of aconite as dispensed in drugstores in that state. We show a photographic reproduction. Fifty-seven samples are reported upon, and there are indeed "fifty-seven different varieties," since no two are alike.

TINCTURE OF ACONITE.

In testing these tinctures, Squibb's physiological method was employed. It was agreed by three operators that a dilution of one part of a standard tincture of aconite in 800 produced a distinct tingling sensation on the tongue. This tincture was considered 100 per cent, and the per cent strength of all other tinctures was calculated from this standard.

Lab. No.	Insp. No.	Per cent strength.	Per cent alcohol.	How made.	RETAILER.	City.
3577	2255	2.5	①		E. R. Brown	Eskridge.
3579	2257	30.1	65.4		Dr. Jewett Drug Co.	Eskridge.
3581	2259	Below 2 5	64.9		Dr. L. A. Walker	Harveyville.
3647	2262②	20.8	66.	From fl. ext.	T. E. Brandon	Clyde.
3683	2293	7.8	①		Algie's Cash Drug Store	Linn.
3686	2296	6.2	60.1	Unknown	Dr. R. W. Mainty	Linn.
3713	2323	20.8	75.	"	J. E. Janeway	Haddam.
3715	2325	15.6	①	From fl. ext.	S. T. Yoder	Haddam.
3718	2328	26.	70.1	Bought.	J. W. West	Narka.
3723	2333	20.8	70.8	From fl. ext.	Bixby & Potter	Republic.
3730	2340	25.	70.	" "	D. A. Nywall	Scandia.
3733	2343	17.8	73.1	Unknown	Republic Pharmacy	Belleville.
3736	2346	20.	①	From fl. ext.	Arbuthnot & Billingsley	Belleville.
3738	2348	6.2	70.5	Bought.	Arbuthnot & Billingsley	Belleville.
3740	2350	20.8	64.8	From fl. ext.	M. G. Reed	Cuba.
3742	2352	6.9	65.4	" "	Geo. M. McEckerson	Concordia.
3745	2355	6.9	48.5	" "	W. M. McCarty & Co.	Concordia.
3754	2364	50.	65.4	Unknown	J. G. Trueblood	Glen Elder.
3768	2368	6.2	72.4	From fl. ext	D. R. Seymour	Ionia.
3770	2380	3.	①	Unknown	S. E. Cogswell	Kirwin.
3774	2384	6.9	65.9	"	Dr. L. T. Brown	Kirwin.
3779	2389	20.8	71.9	From fl. ext.	Zimmerman Drug Co.	Portis.
3783	2393	15.6	67.	Bought.	Baldwin & Co.	Osborne.
3787	2397	20.8	69.6	From fl. ext.	H. B. Leach & Son	Alton.
3790	2400	10.3	66.4		J. B. Hatfield	Osborne.
3795	2405	15.6	66.1	From fl. ext.	Thomas Brown	Logan.
3800	2410	31.2	73.4	Bought.	Smith Drug Co.	Stockton.
3808	2418	20.8	72.6	From fl. ext.	G. R. Thomason	Stockton.
3829	8371	20.8	72.6		J. P. Roberts	McCune.
3837	8379	5.	71.1		Wayne C. Alford	Mullinville.
3839	8381	Below 2.5	67.		A. W. McKinley	Haviland.
3841	8383	25.	60.9		Pettijohn Drug Co.	Haven.
3845	8387	8.1	①		Dodge & Fuller	Ashland.
3846	8388	6.2	①		Rice Bros.	Ashland.
3858	8400	10.4	69.3		Junction Pharmacy	Coffeyville.
3871	8413	7.8	73.9		Sunflower Pharmacy	Independence.
3872	8414	17.4	62.5		I. G. Fowler	Independence.
3878	2419	8.8	50.7	From fl. ext.	Forline & Utt	Downs.
3888	2429	Below 2.5	74.6	" "	Bunch Drug Co.	Beloit.
3894	2435	20.8	72.8	" "	Dr. Clarke Kelley	Bonner Springs.
3897	2438	10.4	60.71	" "	Fred Schroeder	Leavenworth.
3901	2442	15.6	①	" "	C. L. Walkenwitz & Co.	Leavenworth.
3928	8457	2.7	①		Arnold Drug Co.	Topeka.
3939	2473	4.7	61.15	Unknown	Dr. I. J. McCalman	Piper.
3941	2475	31.2	66.2	From fl. ext.	C. H. Cain	Tonganoxie.
3943	2482	8.3	①	" "	Cleverdon Bros.	Leavenworth.
3951	2485	34.7	68.4	" "	R. L. Igel	Leavenworth.
3957	2491	6.2	①	Bought.	Rebsamen Pharmacy	Leavenworth.
3960	2494	Below 6.2	60.	"	Adolph Lange	Leavenworth.
3974	8420	Below 3	66.7		H. S. Mustard	Cherryvale.
4004	8450	31.2	59.6		I. L. Graen	La Harpe.
4010	8462	3.1	60.4		Owl Drug Store	El Dorado.
4015	8467	6.2	66.		Sollit & Swarts	Arkansas City.
4021	2473	25.	64.8		John S. Cree	Arkansas City.
4079	2549②	2.5	62.6	Bought.	J. W. Crookson Drug Co.	Wichita.
4114	2584	33.	68.3	Unknown	G. A. Murphy	Wichita.
4184	2595	Below 5.	①		C. E. Potts	Wichita.

1. Insufficient quantity to determine alcohol.
2. Tincture of aconite leaves.

Bulletin issued by Kansas State Board of Health, showing results of aconite investigation

Using Squibb's tincture as the standard, it seems that not a single sample was up to strength—the nearest is 50 percent, and the next in quality is one of 34.7 percent strength. Ten samples varied between 25 and 34.7 percent; sixteen were between 10 and 25 percent; eighteen between 5 and 10 percent; and eleven below 5 percent.

The official tincture of aconite contains approximately 70 percent of alcohol. Forty-two of these samples exceeded 60 percent in strength, and were, therefore, presumably strong enough in spirit. There were fourteen samples, however, in which the investigators report "insufficient quantity to determine alcohol."

Pharmaceutical authorities have repeatedly advised against the dilution of fluid extracts to make tinctures, yet at least eighteen of these "tinctures" were so made.

About three-fourths of these samples of tincture of aconite were apparently so weak as to be practically inert in the dosage advised in our textbooks. Properly employed, in suitable dosage, aconite is one of the most useful remedies in the materia medica; but if physicians generally are depending for their supplies upon preparations like those found in Kansas, there is little wonder that they fail to get results, and so fall into the fashionable heresy of "therapeutic nihilism."

As a rule I do not think that the fault is the druggist's. He is doing the best he can with a class of preparations which, from their very nature, are uncertain and difficult of control.

We leave the deductions to our readers.

AN ESPERANTO BOOK FREE

Mr. Arthur Baker, editor of *Amerika Esperantisto*, writes us that he has prepared 100,000 brief grammars of the Esperanto language, in pamphlet form, and will send one free to any person who is sufficiently interested to ask for a copy, enclosing stamp for reply. His address is, 700—714 East Fortieth St., Chicago.

We are sure that the interest inspired by the articles already published in our journal will lead many readers of CLINICAL MEDICINE to take advantage of Mr. Baker's kind offer.

SECONDARY CATARRHAL PNEUMONIA

R. McB., aged four years. On March 15 the child had a chill followed by fever, thoracic pain, cough and dyspnea. I saw her the following morning, and upon examination found these conditions: Temperature, 103° F.; pulse, 120; respiration, 30; skin, hot and dry; tongue, coated; face, flushed; slight dyspnea; breathing, rapid, causing some distress; cough, dry and unproductive, and an occasional paroxysm ending in vomiting. The physical signs were those of an acute bronchitis. The breath-sounds were harsh, there was slight lengthening of expiration, sibilant and sonorous ronchi were plentiful in the right lung, but only a few in the left. The urine was scant and highly colored.

The treatment instituted was as follows: Atropine, aconitine and digitalin, to reduce fever; calomel and podophyllin in hourly doses, to evacuate the bowels; the sulphocarbolates for intestinal antisepsis. Emetin and iodized calcium were given to facilitate expectoration; the entire chest was encased in a cataplasm of kaolin.

By the 17th the patient was free of fever, respiration was normal, both lungs were free from mucus, appetite was good, bowels and kidneys were active. She was kept in bed during the day, but some ten or twelve hours later had a chill followed by high fever; the cough was distressing but unproductive; there were dyspnea, slight delirium, headache, and pain in right side.

I saw her two or three hours later, and upon examination found the right lung entirely involved in an acute catarrhal inflammation, but the left unaffected. Persistent headache and delirium marked the course of the disease throughout. On the third day the left lung also showed involvement. Kidneys were sluggish, bowels constipated. Her temperature ranged from 100° to 104° F.; pulse from 110 to 130, at times weak and irregular; respiration from 25 to 40, shallow and at times labored.

The following treatment was relied upon: Calomel and podophyllin hourly, followed by castor oil, to get free evacuation of the bowels. Daily enemas of warm water and glycerin. Sulphocarbolates of calcium, sodium and zinc, to render the intestines as antiseptic as possible. Aconitine, strychnine and digitalin, to control fever, aided by moderately cold water sponges and ice-cap to the head. Small doses of morphine, cannabis and hyoscyamus, to relieve headache and pain in the side. Emetin, iodized calcium and sanguinarine as expectorants. Arbutin and barosmin were given for inactivity of the kidneys. Nuclein together with the arsenates of iron, quinine and

strychnine were used as stimulants, and during convalescence, as tonic. Milk, chicken broth and beef extract were the principal nourishments. Complete recovery resulted in about ten days.

R. K. OGILVIE

Blodgett, Mo.

ON IMMORTALITY

Anyone who is interested in this subject will do well to procure Dr. C. A. F. Lindorme's little pamphlet, reviewed on page 1146 of the October CLINIC. Address Dr. C. A. F. Lindorme, 287 Gordon St., Atlanta, Ga.

FEVER, GALLSTONES AND GRIP SUCCESSFULLY TREATED

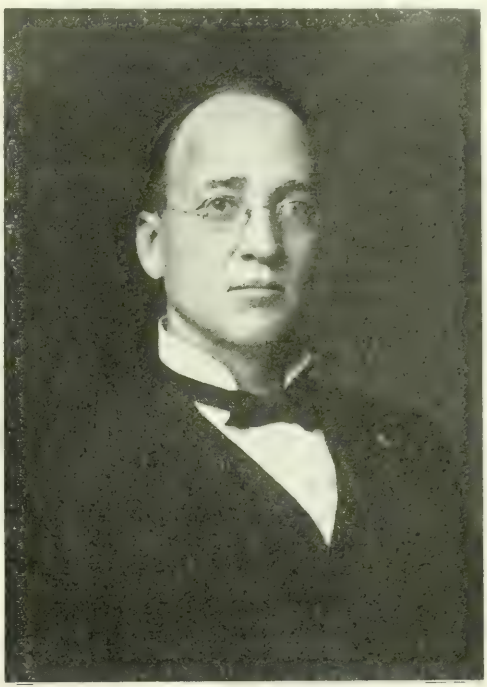
In the first place, my experience with the alkaloids has been most satisfactory, both to myself and to my patients. This, however, will not be startling to any of my readers who have taken hold of the active-principle remedies and thoroughly tried them out. I have been using them for eight years and have found them to be reliable.

I am in my twenty-ninth year of practice and have picked up (or picked out) a few therapeutic agents or combinations that have served me well in all cases where indications or symptoms called for them.

In order not to consume the valuable space that others could use, with perhaps more advantage than I, I shall briefly state a few dependable facts that I have come to rely on.

For fever I use the following:

Lobelin, 1-12 grain, 1 granule; aconitine, 1-134 grain, 24 granules; bryonin, 1-67 grain, 1 granule; carmine, 1 granule; saccharin, 1-8 grain, 3 granules; and where indications present I add to the above 20 granules of gelseminine, 1-250 grain. I dissolve all in a glass with twenty-four teaspoonfuls of hot water. Directions: One teaspoonful every half to one hour until the fever cools, and then every two hours to keep down the fever. Only one question will come from the reader after looking over the above antipyretic mixture, and this is, "Why use the lobelin?" My answer is that lobelia is beyond doubt nature's broad antitoxin and hence is a *desideratum* in almost any medication. This mixture, backed good and strong by the "clean-out-and keep-clean" system which the CLINIC "family" has had drilled into them for years, will work wonders.



DR. C. A. S. SIMS

Cholelithiasis (Gallstones). To ease the pain I first rely on dioscorein, 1-8 grain, one granule every five minutes, with one-half glass of hot water, as hot as the patient can drink it. From four to twelve doses relieve the pain, or at least relieve it to such an extent that it is easily tolerated. When this stage is reached I give two or three granules every two or three hours until all pain is gone. I have met with only a very few cases when this was not effective. When opiates have to be used I give full-strength hyoscine-morphine-cactin tablets hypodermically to effect.

Now comes the part of the treatment that you see little written about. I use exclusively

boldine, 1-67 grain granules. They do the work effectively. I order two granules taken after each meal, and increase one granule a day (not one a dose) until eight granules are taken at a dose three times a day, or eighteen granules a day. Then I order one granule a day dropped off until a dosage of two granules per dose, three times a day, is reached. I then direct that this dosage of six granules per day be maintained until the patient has taken two bottles of five hundred granules each. This has been my treatment for the past six years and without a single recurring case. Does boldine dissolve the stone? I do not know. I have believed that the dioscorein relaxes the duct and lets the stone pass out into the intestine, almost painlessly, and that the boldine corrects the pathological condition and prevents the formation of the stones.

The Grip.—Clean out with calomel, 1-8 grain, and podophyllin, 1-6 grain, of each one granule every half hour for six doses. One-half hour after the last dose give one or two teaspoonfuls of saline laxative in one-half glass of hot water, or, if preferred, hot lemonade. Beginning at the same time that this is taken I prepare the following mixture and administer it:

Lobelin, 1-2 grain, 1 granule; aconitine, 1-134 grain, 24 granules; bryonin, 1-67 grain, 24 granules; gelseminine, 1-250 grain, 24 granules; carmine, 1 granule; saccharin, 1-6 grain, 3 granules.

Put all in a glass and add twenty-four teaspoonfuls of hot water. Directions: One tablespoonful every hour until fever cools, then every two hours until all is taken. I seldom have to repeat this as the grip is gone when the medicine is all taken. I have a large number of grip patients come or send to me for some of "that pink grip medicine," as they have learned to call it. I get the refill and the dollar, instead of the druggist refilling my prescription, times without number.

The one single thing that has served me best of all in my twenty-nine years of practice is physiological suggestion upon one particular point. This is, that I know what my medicine should do for the patient, and I forcibly impress upon their minds just what it will do. I do this in every case, and it rarely fails to do good. It establishes a confidence that nothing else in medicine will establish. Many are the patients that have said to me when I made the return visit, "Doctor, the medicine did just what you told me it would do when you fixed it up."

There are some few more dependable facts I have at hand that serve me well, but space forbids any lengthening of this "experience testimony."

C. A. S. Sims.

Kansas City, Mo.

[The doctor strikes a number of therapeutic nails squarely on the head. Here is "experience" that is worth trying out by members of the "family." It should stimulate others to clinical investigation.

The use of boldine in the treatment of gallstones is of special interest. We have long employed this remedy, which has had an enviable reputation among our dosimetric brethren in France, but always in association with sodium succinate, which has assumed in our minds almost the standing of a "specific" in these cases. However, we hope that other physicians will follow out Dr. Sims's scheme of treatment, and report.

Dr. Sims should not keep valuable items like these exclusively under his own hat. They are so good that every reader of Clinical Medicine will join us, we are sure, in asking for more.—Ed.]

HEMORRHAGE FROM THE UMBILICUS

The July number of Clinical Medicine brought to memory a "scare" in my junior year in medical school and the knowledge that a hemorrhage from the navel following detachment of the cord is considered a serious affair. I knew that the laity was afraid of it, but did not know the profession was.

With a preceptor I had attended the confinement of a woman and everything was going lovely. A few days afterward I was telephoned. "The baby is bleeding to death

at the belly-button." I telephoned for my preceptor. He had gone to Michigan. It was "up to me!" I grabbed my "Obstetrics"—could find nothing; "Surgery" and "Practice" were equally barren of any helpful suggestions.

"It can't be much or there would be something here about it."

No street-cars at that time of night, I ran most of the two and one-half miles.

Monsell's solution—failure! Tannic acid—failure!! Adrenalin chloride tampon—failure!!! And the half-dozen or more skirted calamity howlers that had congregated, coupled with the quiet, hopeless stare of the mother, had me "goin' some."

I grabbed that new obstetrical bag, hoping its contents would give me a suggestion. My hypodermic! Just a few drops of adrenalin solution under the skin, close to the point of hemorrhage, and it stopped like magic. Just staining the area with dilute Lugol's solution, covering with antiseptic dusting powder and a gauze tampon held with adhesive strips, I left the patient.

That was all.

By the time my preceptor returned I had begun to think the incident was of so little consequence, the trick so simple, that I would only get a rebuke for not doing it at first, and I never mentioned it.

Was I the first to use adrenalin chloride hypodermically in such a case? Has it been used in other like cases and failed? Is there anything better?

A. A. D.

[After all, the real test of a doctor is his resourcefulness, which means the ability to add together the scraps of knowledge, *on short notice*, so they'll "work out." Adrenalin is one of the remedies to suggest itself to thoughtful men, but even this seems to fail in some of these hemorrhages from the umbilical stump. What say our readers?—Ed.]

CHILBLAINS AND OTHER ITEMS

Having been a reader of Clinical Medicine for several years, I wish to contribute a little in return for benefit received.

In all the cures for *chilblains* I have seen, kerosene is seldom mentioned. I suffered severely for years, after freezing my feet, and was finally completely cured by soaking my feet in clear kerosene for three hours for two successive days. There was absolutely no discomfort afterward. I had tried everything recommended, but with almost no result.

Dr. C. W. Ihle and his little girl in his "cozy cab"

I use the dosimetric granules a great deal and have had some fine results in pneumonia, high fever from autointoxication and in colds.

The "coryza" combination of atropine, aconitine, codeine and quinine is my stand-by for beginning colds. The only trouble is that doctors do not often get colds to treat till they are beyond the stage when they can be aborted.

I have tried calcium sulphide many times, but my results have not been very encouraging. I feel that the wonderful results claimed must be due to other causes. However, I am still using it and do not feel that I have tried it in a thoroughly scientific way as yet.

The arsenates of iron, quinine and strychnine with nuclein have done good work for me with old people.

Calcidin I have used too little to judge, but have had no results in the cases tried.

I have had two cases lately of violent pains, high temperature, badly coated tongue, causing parents great anxiety, in which the clean-up and clean-out treatment has worked well.

In a case of blood poisoning following vaccination in a child, calcium sulphide, calomel followed with saline laxative, epsom-salt baths with ichthyol (50 percent) as a local application proved successful in a short time. Whether the calcium sulphide helped I cannot be sure.

A case of persistent metrorrhagia near the menopause, after curetting and pushing ergot, seems to have been cured by the use of the compound calcium tablets containing calcium chloride and calcium lactate. Before administering these all treatment seemed to fail.

The antispasmodic granule of strychnine, hyoscyamine and glonoin I could not do without. It has relieved many cases of colic, dysmenorrhea and other spasmodic pains. It also helps my asthmatic patients —some more than others, of course.

Some suggestions on urticaria would be welcomed; I have a seemingly intractable case. The same case benefited as to hemorrhage by the calcium compound, but the urticaria is no better. Has a uric-acid tendency, but is not especially helped by treatment on that line.

OLIVE W. BROWN.

Salem, Mass.

[We are very much pleased to hear from the sister-doctor, with her record of successes and failures. She is welcome, and may she come again.

Thanks for the suggestion relative to the treatment of chilblains. This is one of those troublesome things that once in a while yields readily to some simple remedy and "twice in a while" refuses to yield. We have a feeling that in addition to the local medication it is generally wise to look closely to the nutritive end—bowels, alimentary antisepsis, digestion—and to give remedies that will raise the vascular tone somewhat, as strychnine, digitalin or ergotin. We "suspect" that some of our readers can offer us some valuable suggestions relative to this trouble. Please do so.

The doctor is right—most patients do not come to the physician early enough when a cold is contracted. But even when they come late much can be done if the fundamental principles of treatment are considered—and common sense used. The combination mentioned is an excellent one. Clean out, of course, and keep the skin active.

Dr. Brown is one of the few who report failure with calcium sulphide. She should read the reports of men like Gray of Mexico and Ussher of Asia Minor, who have had simply wonderful success with this remedy. When failure is reported I suspect one of the three things: the alimentary clean-out has not been thorough, the dosage has been insufficient, or the drug itself was not good.

After Dr. Brown has enlarged her experience with calcidin we hope she will report again.

Those cases of urticaria! How they do bother us sometimes, absolutely refusing to yield to the agents which should turn the trick, according to all the rules of the game. We surmise that there is no specific for this trouble and that we shall always have to depend upon a careful study of each individual patient. In the majority of instances a careful study of urine, feces and blood will give the clue. That's where the laboratory comes in. And, as a matter of fact, in every case which puzzles us we should resort to this agency, for the help we are sure to need.—ED.]

COLDS AND THEIR TREATMENT]

Under the above heading permit me to group acute coryza, grip, with accompanying coryza and all kindred ailments that we are called upon to treat in increasing numbers through the fall and early winter

The first symptom of an attack of "cold" may be repeated sneezing, which indicates a beginning engorgement of the nasal blood-vessels. Later come the chilly sensations, with aches in the head, back or limbs and which may be mild or severe. There is a "stuffed-up" feeling in the nose and head. The mucous membrane of the nose, if inspected, is seen to be red and swollen, a condition usually extending to the pharynx. There is a irritating serous discharge, generally becoming purulent within twenty-four to thirty-six hours. Labial or nasal herpes may appear, and from inflammation of the pharynx and larynx, the voice becomes husky and swallowing difficult. Fever is generally present, especially in children. Bronchitis with cough is present in many cases. In the simple cases, for which the doctor may not always be consulted, the patients complain only of the irritating "tight" cough and "running from the nose." Ordinary colds often terminate within a week.

Treatment should be directed toward aborting or cutting short the acute attack, restoring normal tone to the mucous membrane of the respiratory tract and maintaining or building up body-resistance.

To abort the attack, a brisk calomel and saline purge, together with a hot foot-bath and the administration of aconitine taken with a glass of hot lemonade, followed by the modified Dover's powder (consisting of morphine, emetine and monobromated camphor) have been used for this purpose with success. While these remedies do not always accomplish the desired result, yet the diaphoresis produced tends toward restoring the normal, healthy balance.

After the cold has developed, nothing relieves the "stuffed-up" feeling as will a brisk spray of an alkaline solvent solution, followed by one of soothing oils, such, as, for instance, the following: Thymol, 0.12; menthol, 0.3; albolene, 60.0. The campho-menthol ointment, containing campho-phenol, eucalyptol, chloretone, menthol and petrolatum, is one of the very best of local applications.

If there be fever with general malaise, rest in bed should be ordered. Aconitine will relieve the fever, and if codeine is added the nervous irritability will be quieted and the cough checked. A good combination is one consisting of atropine sulphate, gr. 1-100, and calomel, gr. 1-12. Even better are combinations of atropine, aconitine, and morphine or codeine. Such a dose should be given every half hour until the physiologic action is obtained, as evidenced by dryness of tongue or throat, when it is stopped. Later the remedy may be given three to five times daily. For the pain or ache in the muscles and joints, a salicylate should be given Remove the calomel by saline laxatives.

For the prevention of further attacks the local treatment should be continued until the mucous membrane is normal in color. Potassium bichromate and emetin reestablish a healthy mucous secretion and should be given in doses of 1-67 grain every two to three hours, with hot water. Cold baths with brisk rubbing also aid in preventing recurrence.

When resistance is poor the restorative tonics like iron, codliver oil, nuclein, etc., are to be used. These with nutritious food and good hygiene will restore the bodily equilibrium.

LESTER E. MEE.

Wilmette, Ill.

HOW DR. GRAY TREATS MEASLES

We have just received another interesting letter from Dr. Robert Gray of Pichucalco, Mexico, in which he says:

"I now have the most people I ever had at one time under my jurisdiction, and have the least taxing work to do I ever had, owing to the magnificent preventive method I employ. I have not slept out of my proper bed but twice in forty days; and now is the great epidemic season of fevers, dysentery and measles, everywhere rampant, with high mortality except in my cleaner field, where I have had but one death in six months—a case of black-vomit, the patient being dying when I was called.

"On the subject of measles I am almost afraid to talk, as I sponge the little brats with epsom-salt solution, as hot as bearable,

saturate with calcium sulphide, and push a febrifuge, with pilocarpine, not omitting the cleaning-out process; and they are well in a trice."

We have another splendid paper from the doctor, which we hope to publish in December.

ANOTHER FATAL CASE OF UMBILICAL HEMORRHAGE

I read in the July number of CLINICAL MEDICINE that a child having umbilical hemorrhage after the stump comes off means death. I have also read in the August number that G. H. Hoge has successfully treated such a case, with a possibility of the child getting well (page 914). Now I wish to report the first case I had of the kind which terminated fatally.

About three months before the 30th of May, 1910, I was called to see a woman with a threatened abortion and who is habitually aborting between the fifth and seventh months and had had three in which the best skill around here was employed without avail. I succeeded in having her bring this case to time, which came on the 30th of May. The child was full-grown but ill-nourished, weighing about four and one half pounds, and had icterus neonatorum which continued through its term of life although everything possible was done to remove the condition. The child never gained any flesh at all. The navel was ten days falling off, and about six days later I was called and found umbilical bleeding.

In water that was boiled and cooled I dissolved some lysol and with this cleansed the part thoroughly, then dusted the navel with formic iodide and applied pressure with sterile gauze kept in place with adhesive plaster. This was left on for about three days, when I removed the dressing, cleansed the part antiseptically and dressed again, as the bleeding had ceased, the stump, however, being raw. In about nine days the place was healed entirely and the child apparently doing nicely.

Two days later I was called quite hurriedly, and on reaching the place I found the child cyanotic and breathing with difficulty. I instituted artificial respiration, and blew into the child's face and mouth, the mother fanning it the while, and soon the blue color disappeared and the child began breathing naturally. Soon another attack came on, and thereafter as soon as one ended another came on until blood came from the baby's mouth and a little from its nostrils. I believed at the time that the bleeding was the result of internal hemorrhage or hematemesis from the umbilicus internally and felt quite reassured when I saw the article mentioned, in the July number. Of course the child died in less than an hour after my arrival.

I also know of a case Dr. Boswell had here in which he made a purse-string suture as did Dr. Hoge, but in spite of everything else he did, the child died. He has been here fifteen years and he says he never saw a case in which the child lived. Of course, being young in the practice, I felt that possibly I did not do all I might have, but now I feel relieved and know that I did everything it was possible to do.

S. T. SEALY.

Mounds, Ill.

PNEUMONIA CAN BE ABORTED

For some time I have been a silent reader of your most excellent journal, and I can truthfully say that I have obtained more real, practical, beneficial knowledge from it than I ever did in a class-room, one of the important things learned being that inflammatory diseases can often be aborted or cut short. As evidence I will cite one case of pneumonia lately treated.

I was called to see a Mr. Barrett, aged 28 years. I found him with a typical pneumonia of five days' standing; pulse full, 142 beats a minute; respiration short, and at the rate of 36; temperature, 104.5°F.; cough croupy; a tough brown or bloody expectoration. The patient's tongue was as dirty as I ever saw and his mouth so dry he had to moisten it to talk or to swallow. His cheeks were red as though all his blood had gone to them. The entire right lung

was involved, in fact it was an ugly case of pneumonia in the second stage.

I gave calomel and podophyllin to effect, and alternating with it, aconitine, two granules every one-half hour, and one-fourth of a 5-grain tablet of antifebrin with every fourth dose, directing this to be given regularly until the pulse softened and the skin became moist, then to stop the antifebrin and continue the granules, one every hour until my return. I had his side rubbed well with a coarse cloth soaked with a mixture of oil of turpentine and kerosene, then covered with antiphlogistine. In addition I gave sufficient codeine to make him rest, with a little ipecac for expectoration.

In about sixteen hours I saw the man again. The bowels had moved copiously, mouth and skin were moist, cheeks natural in appearance; I found a soft nice pulse of 92, easy but short respirations, 20 per minute, temperature 99.25°F. I left codeine and ipecac and ordered a dose of castor oil with 10 drops of oil of turpentine to be given the following night. On my visit the following morning I found pulse and temperature normal, tongue nearly clear; patient had rested well and was hungry. I removed the antiphlogistine and found the breathing full except for a slight engorgement persisting in the lower lobe of the lung. There was considerable cough, but free, very frothy expectoration. I left some intestinal antiseptic tablets, had the side rubbed again with oil of turpentine, collected my fees and said good-by.

I have been in regular practice since 1872 and know that had I treated this man according to the old Galenic plan, I should still have him on my hands or else he would be out where all dead folks live. This is by no means my only case of pneumonia aborting but it is the most recent. Seven days after I was called Mr. Barrett rode a rough horse a distance of 28 miles.

I had intended to tell you of some of the good results the H-M-C is giving, but as I have said so much already I shall have to write of this another time. I have not tried urethral bougies. I now have a chronic case of gonorrhea and shall give them a trial.

G. R. CONNALLY.

Nason, Miss.

[We print the above letter in full in order to show what the regular practician can do and is doing in the management of that bugbear, pneumonia, college professors to the contrary notwithstanding. Dr. Connally's thirty-seven years of treatment have taught him to recognize a case of pneumonia when he sees one, so that the objection of "wrong diagnosis" can hardly be raised. We congratulate the doctor on his splendid and efficient treatment, in which we would only suggest the substitution of emetin for ipecac, and hope that he received a good big fee, commensurate with the loss of time and the suffering from which the patient was saved.—ED.]

SUNLIGHT AND DISEASE

There was smallpox in our community and I was health officer. I did as much as I could to eradicate the evil, but as usual had to deal with a good deal of ignorance and consequently of resistance. On the other hand, I was called in by more enlightened people to diagnose cases which were supposed to be the dreaded disease.

One night a lady came to my office and told me that her daughter was sick, that she had chills, vomited, and had pain in the back and head. I warned the mother that it might be the prodromal stage of smallpox and that it would be advisable to have the girl under close supervision. It was quite late in the evening, so I gave some advice, a little medicine, and waited for a call, which came in the early morning. Etta was worse. Etta is a beautiful girl of a sterling character. I have been their family physician for several years and pride myself of their friendship and confidence. Having seen so many cases of smallpox in India, Arabia and Russia I think I am quite familiar with all the stages of the disease, and so, when I saw my patient, I had no doubt that smallpox was threatening her beauty.

Besides the usual fever and digestive derangement there was a uniform reddening of the skin, of a deeper hue yet on the lower abdomen. The temperature was 104° F., the pulse 96.

If this case had been an isolated one it might not have aroused the well-deserved suspicion, but since I had to deal with an epidemic, and the numerous cases almost without exception presented the same marked symptoms, there scarcely could be any doubt about what was coming.

I at once ordered the room darkened, red cheese-cloth over the drawn shades excluding all sunlight and giving the room a ruddy hue. A miniature lamp with a red shade was allowed in the night. A brisk cathartic was given, and to abate the fevers, tincture of aconite was resorted to. This constituted the only medication, while meat was excluded from her diet.

The fever kept on for two days, now high, then low, a high temperature always initiated by severe chills which shook the bedstead as with giant hands. In the third night she commenced to complain about intolerable itching. "I feel," she said, "as if something is going to break out, measles or scarlet-fever or something of that sort." She did not mention smallpox though, and not a word was said about our suspicions. There was now pain in the throat and an intense feeling of heat.

Slowly the condition improved; then the fever suddenly abated, insomnia disappeared, appetite returned, and after keeping the patient in the red room for two days more she was allowed her freedom. At the end of her illness we told her the reason for the treatment with red light. She was never vaccinated and even now refused to be.

The treatment (prophylactic) by red light by no means is new. Already as early as in 1300 John of Gaddesden, physician to Edward II of England, used the red light. As to my own experience, I could relate many cases in which I have prevented smallpox from breaking out.

I remember one lady, showing the very symptoms, who on the third day insisted on having a ray of sunlight let in to read a letter from her husband. The nurse, not knowing the extreme importance of the order given, accommodated the lady, and the result was that in less than four hours the pustules made their appearance and the patient was disfigured for life.

We now live in another age, in an age of startling discoveries in every direction. We do not sit down upon the ruins of former greatness, but build up better, finer, greater mansions. And it is our individual duty to help and do our share and contribute a mite to it. And so in talking about light, something came to my mind when I read the Budapest letter in the *J. A. M. A.*, page 611, of recent issue. I read: "Wechselmann's section was located by the innumerable eye-glassed gentlemen who were standing before the door of a large building."

I suggest that all books, all newspapers, all posters, all bills, etc., shall be printed on blue, gray or violet paper; that we shall write our letters, our communications, etc., no longer exclusively on white paper, and that we start as soon as possible in our schools with this—novelty. It is my own firm belief that our thoroughly rooted habit of using white paper has done more harm to our eyes than any other evil and that a cry of warning should go up against the continuance of this custom.

Alas! my alarm cry will be, I know it, as a *vox clamantis in deserto*. But whenever it comes to deeds, you might hear me say, "I told you so."

D. ZWIGHTMAN

Niles, Mich.

PUERPERAL FEVER, PAIN, TONSILLITIS, PNEUMONIA AND LEG CRAMPS

Puerperal Fever.—I have found nothing better than to clear out the uterus, then swab it with oil of turpentine. For the fever I give aconitine, veratrine and strychnine, apportioned according to the temperature. As a local wash I use bichloride solution. The turpentine oil at once stops the odor and penetrates the tissues much better than carbolic acid or the bichloride. Never forget the "clean-out-clean-up-and-keep

clean" part of the treatment, giving small doses of calomel and podophyllin, followed up with effervescent magnesium sulphate, plenty of it, and also the sulphocarbolates.

Backaches, headaches, shoulder pains.—I treat my patients at the office with a 500 C. P. leucodescent lamp and Bihlmeier vibrator. I can *cure* almost any headache in from six to twelve treatments, always remembering the "clean-out-clean-up-and-keep-clean" dictum.

Tonsillitis.—Clean out and use ice-water cloths over the inflamed tonsils. Sciatic rheumatism will last only three or four days under the leucodescent light and the vibrator treatments.

Cold applications and fresh air for pneumonia.—First thing clear out the alimentary canal. I place my patient by an open window, day and night. If I get the patient soon after the chill, I take a cloth, long enough to reach around the chest, fold it to three or four thicknesses, dip it in a pan of cold water, wring it out and envelop the chest, changing as soon as it gets warm. I keep this up day and night until the fever is gone. By so doing I can often abort the disease. There is practically no filling up of the lungs, and the second and third stages are practically *nil.* I need but little medicine: veratrine and emetin, and sometimes a diuretic. Cold applications relieve all the chest pains.

Cramp in the legs.—Slice lemon, rind and pulp, place in a cup, fill with hot water, press out the juice with a spoon and drink before breakfast each morning.

JOHN W. ARNOLD.

Columbus, Ind.

—

[Fine! But note this: The preliminary "clean-out" and sulphocarbolate "clean-up" are basal features of Dr. Arnold's exceedingly intelligent treatment of every case he reports.—ED.]

A CASE OF SHATTERED PATELLA

Mr. J. D. was thrown from a loaded wagon on a steep, rocky hill, when the brake broke. He evidently struck the knee-cap on a small stone, as I could palpate several fragments on examination one hour later.

After making an Agnew splint for this kind of fracture, I applied it, getting the bones in apposition, as best possible, and ordered the patient brought to my house next morning.

On opening, I found less exudation than usual in these cases, so decided to wait to operate, as possibly I could get good results without doing so. After five days I made a cap for the knee and applied it with plaster of paris from the upper third of the thigh to the ankle, and got my patient out on crutches. After twenty-four hours I cut the plaster and strapped tightly. At this time I examined and found the fragments in apposition, with practically no swelling and little pain.

Three weeks later, while the patient was talking to a "doc" while drinking together in a saloon, he was told the knee wasn't done up right; so the case left my hands, but I expected from the above treatment a good leg.

What do the brethren of the "family" think of the treatment? Textbooks are very meager on this subject.

F. E. MCCANN.

Augusta, Mont.

—

[Here is a question for one of our surgeon friends (or anyone who has had experience), to answer.—ED.]

AN "INNINGS" FOR THE POETS

We have an unusually large number of poets—of the really, truly "good" kind—as members of the "family." Hardly a week goes by that one or more of these fails to submit a sample of his (or her) verse for publication—and we're glad to get it. Unhappily, as a rule we are too busy telling one another how to cure ingrowing toe-nails, the itch and other ailments, to court the muses. But we are fond of these fickle ladies just the same. We hope, therefore, that those of our friends whose thoughts flow along in numbers will send us in samples of their verse "as the spirit moves." A few contributions follow:

THE EAR

The listening ear!
What fond delights it gathers, brings:
The carols that the Seraph sings,
The notes the joyous wild bird wings,
The stronger tones the organ flings,
And all the harmony that rings
To start or dry a tear.

This organ strange—
What floods of music usher through,
What sounds resplendent make us view
What eloquence so grand can do
When truth recited makes us true
With all the meaning brought to view,
Within our mental range.

This marvelous sense
Instruction's charm has passed this way,
The voice of love's soft, gentle lay,
The song of childhood in its play,
The merry language, mirthful, gay,
The rumors which our neighbors say,
Have all and each a roundelay
Poured in with life intense.

And thus the ear
With pain or pleasure heard it all,
Attentive to each various call,
Learned secrets which our minds appall,
Gossips no virtue could install;
But to the heart none sink and fall
Like love's sweet charm so dear.

This vital part,
Made to receive the voice of speech,
The flow of words which amply reach
The depth of soul, to know, to teach,
To importune, persuade, beseech,
When heart to heart, and each to each
Is felt the wordy dart.

Lyle A. DeMoss.

Thayer, Kan.

"A DOLLAR OR TWO"

The following poem is sent us by Dr. E. S. Haswell of Albany, New York. He disavows the authorship and is unable to tell us who did write it. Possibly some of our readers can give us this information.

With cautious step, as we tread our way through
This intricate world as other folk do,
May we still on our journey be able to view
The benevolent face of a dollar or two;
For an excellent thing is a dollar or two;
No friend is so true as a dollar or two;
Through country and town, as we pass up and down,
No passport's so good as a dollar or two.

Would you read yourself out of the bachelor crew
And the hand of a female divinity sue,
You must always be ready the handsome to do
Although it should cost you a dollar or two.
Love's arrows are tipped with a dollar or two;
And affection is gained by a dollar or two;
The best aid you can meet in advancing your suit
Is the eloquent chink of a dollar or two.

Would you wish your existence with faith to imbue,
And enroll in the ranks of the sanctified few,
To enjoy a good name and a well-cushioned pew,
You must freely come down with a dollar or two.
The gospel is preached for a dollar or two;
And salvation is claimed for a dollar or two;
You may sin some at times, but the worst of all crimes
Is to find yourself short of a dollar or two.

IF WE BUT KNEW

There's many a tale of the tongue that's untold
That trembles to turn tears away;
There's many a song of the sad soul unsung,
That sighs to see sorrow still stay;
There's many a hope of the heart that's unheard,
That harks to hear heavenly strains;
There's many a wish of the will unexpressed,
That wonders why worry remains.

There's many a mood of the mind, that is masked,
That might move the millions, in voice;
There's many an agency acting alone,
At which all the angels rejoice;
There's many a smile that seldom is seen,
But some time and some where shall show;
There's many a love of the life, not unloosed,
That's learned long lessons below.

The tongue and the soul, and the heart and the will,
May be each and all out of tune;
The tale and the song and the hope and the wish,
Will ah! be forgotten so soon.
The act is soon ended, the mood is soon gone,
The smile fades quickly away;
But the lesson of life is lasting and long,
Only love is the one sure to stay.

Homer Clark Bennett

Lima, Ohio.

THE MICROBE VICTIM

How oft have I scouted the movement of suffrage,
Denouncing most sharply the idea of clubs;
I read all the books I could find on those subjects,
Pronouncing their writers all ignorant dubs.

But one day I happened to swallow a microbe—
'Twas floating around on the rampage at large!
It entered my being and seized on my vitals,
And took its abode in my life, free-of-charge.

And now you can find me whenever I'm wanted
At large public gatherings in village or town;
I speak on those subjects 'till folks are exhausted,
But still I press onward in search for renown.

My husband has left for the high Rocky Mountains,
And relatives kind have our boy and our girl,
While I am engulfed in the mad seething waters,
The home-wrecking waters, the women's club whirl!
'Tis the fault of that microbe,
That audacious microbe,
That indigent microbe
I swallowed that day.

Florence Kenney Evans

Selbyville, Del.

BEIN' SICK

When I am really sick abed,
It isn't ever any fun.
I feel all achy in my head
An' hate to take my medisun.

I hate for all the folks about
To come and pat me on th' face
An' say, "Poor child, you'll soon be out,
An' tiptoe all around th' place.

They go when I pretend to be
Asleep—I do it for a trick;
I don't like folks to pity me
When I am sick.

My mother's diff'runt—I don't care
If she sits by me once er twice
An' says, "Poor boy," an' smooths my hair—
She ain't just tryin' to be nice.

—*Harper's Magazine.*

THE SCIENTIFIC LOVER

["Spray your lips with a carbolic atomizer before kissing," said Dr. Rurick N. Roark, president of the Eastern Kentucky Normal School, in a recent address on "Habits", before the Teachers' Institute. "Thus you will avert danger of death-dealing microbes, transferred by osculation."—Dispatch in the daily press.]

As the moon looks blandly at us
From the sky southwest-by-south,
Let us look well to our status
And prepare each waiting mouth.
You, dear, while I lift my visor,
Lest it punch you in the eyes,
Hand me, please, your atomizer
Ere I make your lips my prize.

You will gaze upon the moon, dear,
In a state of rapt suspense,
Lest too soon—yes, all too soon, dear—
I might let my lips intense
Kiss yours as ere we were wiser
They were wont ofttimes to do—
Ere the saving atomizer
Whispered to us as the cue.

Now, dear, fold your arms about me,
As I clasp you to my breast,
Since no health-crank now can flout me
As too reckless in love's quest.
Love is sweet, though Science tries her
In a multitude of ways,
Even with the atomizer,
In these love-by-reason days.

Kiss me once again, my dearest
(After we have sprayed our lips),
And let not love's feelings queerest
Meantime suffer sad eclipse,
Or stop heart-flow like a geyser
As we fain await our bliss,
While we use the atomizer
Just to usher in a kiss.

Hold your finger, while upon it
I shall place this glittering stone,
Praying dead love ne'er may pawn it—
(Spray some more, my sweet, my own!)
At our wedding, grown still wiser,
I can reverently say,
As we use the atomizer,
Ere I kiss you, "Let us (s)pray."

EARL MARBLE

Chicago, Ill.

SOME NOTABLE MEDICAL- SOCIETY MEETINGS

Different members of our staff have recently had the privilege of attending some of the more important fall meetings of leading medical societies. One of these was the Tri-State Medical Society of Illinois, Iowa and Missouri, which met this year at the Planters Hotel, St. Louis. The President, Dr. William Jepson of Sioux City was detained by illness, and the meeting was ably presided over by Dr. Percy R. Wood of Marshalltown, Iowa. Dr. Walter U. Kennedy of St. Louis was the secretary. This meeting was characterized by a very large increase in membership, for which we are principally indebted to some exceedingly hard work on the part of the treasurer, Dr. Emory Lanphear. The program was a very interesting one, especially notable being the address on surgery by Dr. B. Merrill Ricketts of Cincinnati. We regret that we lack space to describe in detail all the excellent papers that were read. There were no entertainments or dinners—only "just work." This society has a peculiar appeal to the general practitioner and should be more largely attended. Next year it meets at Fort Madison, Iowa. Dr. Walter U. Kennedy was elected president and Dr. A. S. Burdick secretary for the coming year.

The fifty-fifth annual meeting of the Kentucky State Medical Society met in Lexington, September 26—29. The annual oration was delivered by Dr. Frank Billings of Chicago. Dr. I. A. Shirley of Winchester was president and Dr. J. E. Wells of Cynthiana, president-elect. The literary program was up to the usual Kentucky grade of excellence. There were symposia on cancer, on nephritis, on typhoid fever, on surgery of the skull, on

diseases of the liver and bile passages, on headache, and papers on many other subjects of living interest to the physician. The commercial exhibits were good and attracted much attention, not the least of interest being the presentation of The Abbott Alkaloidal Company. There was Kentucky hospitality throughout the meeting, everything possible being done for the comfort and pleasure of the guests. The visit to the Elmendorf Dairy Farm was greatly enjoyed.

The Pennsylvania State Medical Society met this year at Pittsburg, October 4—6. Nearly 600 physicians were in attendance. The president was Dr. Theodore B. Appel of Lancaster, who, in his annual address, lauded the great strides being made in medicine. As in the Kentucky meeting, the papers were of an unusually high order. Chicago was honored through the presence of Dr. John B. Murphy, whose conservative remarks on the treatment of appendicitis were sensible and to the point. The pendulum is swinging backward toward therapy. There were some fine papers on cardiac diseases, while the discussion of tuberculosis was of special importance. The local members of the profession were lavish in their hospitality; certainly everything that could be done for their guests was done. The commercial exhibits were good and great interest was shown inthem. We must not overlook the visit to the Heinz pickling establishment, which attracted many physicians and their wives.

FEASIBILITY OF EXTERNAL VERSION

At your request a few short remarks on serviceability and practicability of external version. Having performed the "trick" once myself, I will say that it certainly is possible, and nothing could be more useful or practicable when it succeeds—which, however, I do not think it can in all cases.

My patient was a multipara, of medium size and strong, though having somewhat lax abdominal muscles, and in fact the same condition obtained in the uterine walls, except during contractions. She was entirely free from any element of hysteria, and was ideal in behavior, yet absolutely no progress was made during three or four hours of apparently perfectly physiologic labor. I had previously examined her in a merely perfunctory manner, which does happen sometimes, but now I determined to find out what was the matter.

Having made sure of a transverse presentation, I was successful in my efforts to correct the malposition by external manipulation alone. The patient made short work of the rest of the process of delivery.

EDWARD TRACHSEL.

Denver, Colo.

RATTLESNAKE-WEED

May I reply to your question on page 1125, October number? The botanical name of "rattlesnake-weed" is eryngium aquaticum. Synonyms, button snake-root, rattlesnake master, water eryngo; German mannstreu, or wasserliebende mannstreu. It is found on the barrens and prairies of the western and southwestern United States. Only the root is used, for decoctions. It is aromatic and pungent in flavor, diuretic and sudorific in effect. In the regions where it grows it has a great reputation as a remedy for snake bites and is used as a household remedy for it.

HENRY RICHTER.

New York, N. Y.

CORRECTION

In Dr. S. J. Brownson's article, "Economic Factors in Disease," in the second column, page 1119, near the bottom, it is stated that according to the Eighteenth Labor Report unemployment was due to intemperance "in only 26 percent of cases." This should have read "only 0.26 percent of cases." While unable now to determine in what shape the original manuscript of Dr. Brownson's article came to us, the occurence of the mistake indicated only serves to emphasize the great danger in the growing custom of omitting, in decimal fractions, the cipher that should invariably stand before the decimal point, for it alone prevents its being lost or overlooked

CLINICAL MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

George F. Butler, A. M., M. D., Director
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PART III—LESSON FOURTEEN

DIARRHEA AND ENTERITIS

PHYSICAL ASPECTS OF DIARRHEA AND ENTERITIS

The Mechanism of Diarrhea is as follows: Either there is a large amount of fluid in the feces, due to their being rapidly hurried through the small intestine, some irritation producing this rapid peristalsis, or there is a too free transudation of fluid into the intestine from the blood-vessels or the glands.

The causative factors are, first, irritants in the bowel-contents, these being of various types, chemical and otherwise; second, irritants acting upon the nerves or nervous system; third, irritants in the blood, as toxins of various infectious diseases.

Cause of Enteritis.—This condition is mostly due to chemical irritants, either poisons present in the food when ingested, or derived from the food after ingestion, or present in the blood. There is, however, another class of cases due to pathogenic microorganisms.

In the first group of cases we have those produced by caustic irritants, acids, alkalis, alcohol, phenol, copaiba, camphor, turpentine, and various heavy metals or their salts, including copper, lead, iron, silver, mercury and a few others. These produce enteritis by directly irritating the mucosa.

Secondly, the ingestion of too much food acting as a mechanical irritant, or through the production by fermentation of caustic acids, and the like. In this class also belong the cases of enteritis produced by idiosyncrasy to particular food, such as milk, or a combination of foods, like fruit and beer.

Thirdly, tainted food: decomposed or putrid fish, flesh, milk, etc., containing ptomains or toxalbumins when ingested, or which may be produced after being ingested.

Fourth, poisons present in the circulating blood, such as mercury or poisons elaborated within the body; waste products, as in uremia and malaria.

Infective Enteritis may be either general or local. As examples of general infection we have typhoid fever, Asiatic cholera, miliary tuberculosis. Local infections are especially gastroenteritis, known as summer diarrhea, or the specific enteritis, caused by the dysentery bacilli described by Flexner, Harris, and Shiga. Among the other organisms are streptococci, colon bacilli, proteus vulgaris, or the bacillus enteritidis sporogenes.

Diagnosis of Acute Enteritis (as also of the chronic stage) can be made by an examination of the feces. In acute enteritis the feces are first semisolid, but rapidly become fluid and watery, with a large amount of foul gas. This depends upon the diet. If carbohydrates are ingested, marsh-gas and acids are produced. If milk be the sole diet, there is a characteristic butyric-acid odor. If the disease be located in the colon, decomposition is not so marked and the urine may not contain indican or skatol.

The color of the feces depends upon the presence of biliary pigments and indicates the site of the lesion. A yellowish stool containing much bilirubin indicates an affection of the small bowel, the contents being rushed through so rapidly that oxidation could not take place. In children, under these conditions, the stools are green, due to the presence of biliverdin. This is rare in adults.

A profuse *serous diarrhea*, often practically colorless, occurs in cholera. Mucus is always present, and if mixed with the feces or if bile-colored, the lesion is in the small intestine. If the mixture of the fecal matter is merely colored or coated with mucus, the pathological condition is in the colon or sigmoid flexure.

In an ordinary enteritis, the simple, purely *inflammatory type*, pus is rare and blood is never found. The presence of much unchanged, undigested food indicates an affection of the small intestine.

Chronic Enteritis.—The presence of mucus in the feces alone makes the diagnosis; the only exception is enteritis membranacea. Mucoid catarrh, however, may accompany cancer or ulcer of the intestine. If there is no mucus in the stools, there is no chronic inflammation of the intestines. In chronic enteritis there is no pus or blood in the stools, but much epithelium.

Ulcers of the Intestine.—These may or may not be accompanied by diarrhea, but ulcers of the transverse colon, descending colon, and sigmoid flexure invariably cause diarrhea. The characteristic findings in the feces are blood, pus, mucus, and frequently fragments of tissue. If the upper portion of the bowel is affected, the blood may be changed to such an extent as to be only detected chemically.

Typhoidal and dysenteric ulcers are much more apt to bleed than catarrhal or tubercular ulcers.

The *presence of blood* indicates ulcer, unless the patient has had epistaxis, pharyngeal hemorrhage, ulcer of the stomach, or a severe anemia. In all of these conditions blood may also be found in the feces.

The *presence of pus* in the feces is much more characteristic and, except in cases of a rupture of an abscess into the lumen of the intestine, it is pathognomonic of ulceration, either catarrhal or malignant.

In the presence of bile in the feces, or if the reaction is highly acid, we have a positive indication of inflammation of the small intestine. The presence of icterus indicates trouble in the duodenum.

The blood does not show anything particularly diagnostic, but may be of value in excluding certain conditions.

In acute enteritis we always have a slight *leukocytosis*. This would exclude typhoid fever, in which no leukocytosis is present. In chronic cases we always have an anemia in which the hemoglobin is decreased to a much greater extent than are the red blood-corpuscles, the result being a low color-index.

In the ulcerative form of enteritis, except that produced by tubercle bacilli, we have a leukocytosis with an increased percentage of neutrophiles. Eosinophilia may or may not be present, and it is usually not very marked unless intestinal parasites are present. *The urine* is usually highly colored and concentrated, showing a high degree of acidity, and if the small intestine be involved, indican usually is present. Albumin and casts are rarely found unless the patient also is suffering from nephritis.

J. F. Biehn.

Chicago, Ill.

THE TREATMENT OF DIARRHEA

Prophylaxis.—In persons predisposed to diarrhea by previous attacks, or from ill-health, a change of residence to the moun

tains or seashore before the beginning of hot weather is the most efficient precaution that can be taken. For infants and children under three years of age living in cities, this is an almost indispensable rule, and many lives may be saved by the timely insistence of the family physician on this point. To prevent a recurrence, the strict enforcement of a dietary regimen suited to the individual capacity of digestion is needed to bring about a permanent cure, and no recovery can be said to be complete until at least a year has passed without a relapse. The question of clothing and avoiding sudden changes of temperature must be dwelt upon, as the patients under consideration are very susceptible to the influence of cold. In every individual case the knowledge of the diathesis will be of service for formulating advice as to diet, mode of living, and the like.

Clean Intestine the First Consideration.—The treatment of diarrhea consists, first, in removing any irritant which may be giving rise to it, and, second, in soothing any irritation of the intestines possibly remaining after that. In the case of an artificial diarrhea due to mercurial purgatives, great care must frequently be exercised to insure the removal of the latter. Thus it is the common practice to give a laxative saline the morning following a dose of calomel. This practice is useful not only in insuring the removal of waste products from the intestines, but of clearing out the calomel itself. Sometimes, if the calomel be taken alone at night and no saline in the morning, the calomel will act as a powerful irritant, giving rise to much pain.

Saline Eliminants.—Perhaps the most useful remedies for routine use in the *pretreatment* (if I may coin the term)of diarrheas are the laxative salines. These have the advantage of acting very quickly and practically without the production of intestinal irritation, sweeping out the fecal accumulation or other source of local trouble, and carrying with it a large proportion of the trouble-making microorganisms. If the stools are fetid, or there is reason to believe that there is still a considerable fecal mass left behind, the calomel should precede; otherwise the laxative saline should be taken at once. If given in effervescent form (as effervescent magnesium sulphate) it has a sedative effect upon the stomach. Children will take readily a laxative-saline lemonade, made by adding a little lemon and sweetening a solution of such an effervescent preparation.

Value of Castor Oil.—In the case of diarrhea caused by food, either excessive in quantity, objectionable in quality, or so decomposed in the intestine as to be irritating, one of the best means of stopping the diarrhea is to give a full dose of castor oil together with a few drops (5 or 6) of tincture of opium. The castor oil clears out the intestines thoroughly, irritating matters are removed, while the opium soothes the entire tract and allows it to recover from the irritation.

If in place of a purgative an astringent be given, the bowel movements are arrested temporarily, but the irritant still remains, and if the content consists of decomposing food, its retention only makes matters worse, so that after a day or two the diarrhea will return in a severer form than before.

Other Useful Remedies.—Among these one of the principal ones is compound rhubarb powder, if the diarrhea is due to indiscretion in diet. Rhubarb and magnesia act as purgatives and clear out the intestines, while the slight percentage of tannic acid contained in the rhubarb acts subsequently as an astringent. The neutralizing cordial of the eclectics acts very nicely in much the same way. It is now available, in a modified and improved combination, in the tablet form.

When the diarrhea is due to irritation in the mucous membrane of the intestines itself, as in the catarrh which succeeds violent irritation, and not to irritating substances remaining in the bowel, a good treatment is to give a preparation of calomel and sodium bicarbonate, followed by a saline purgative. One good formula is: Calomel, gr. 1-6; iridin, gr. 1-6. Give every hour for four doses. One hour after the last dose give a full teaspoonful of effervescent

magnesium sulphate. Repeat this treatment in forty-eight hours.

Use of Astringents.—It must be borne in mind that if the diarrhea depends upon the presence of irritating substances, the use of astringent remedies, such as chlorodyne, Dover's powder (plain or "modified"), Squibb's mixture, or any of the vegetable astringents, while perhaps giving relief for a time, may render the diarrhea more troublesome if they are taken before the irritant contents have passed out.

On the other hand, if the diarrhea has continued for some days and the irritant be already removed, some of the astringents may soothe the intestines and effect a permanent cure. Ordinarily it is not wise to give these astringent remedies, unless an excessive amount of fluid dejecta is passed.

Diarrhea Due to Mixed Causes.—In many cases diarrhea is due to more than one cause, as when there are not only irritating substances in the intestines but simultaneously an irritated or inflamed condition of the mucous membrane itself. Here a useful plan of treatment therefore is to give, as the first thing, calomel followed by effervescent magnesium sulphate or a dose of half an ounce of castor oil. If the latter, then one hour afterward let the patient take some hot tea or other warm drink to assist the oil.

After there has been free action, administer a sedative such as the following: Bismuth subcarbonate and sodium bicarbonate, of each 10 grains; spirit of chloroform, 10 minims; peppermint or cinnamon or clove water, 1 ounce. This dose may be given every four hours, twenty minutes before food (if near meal-time). The remedies mentioned, however, often are inconvenient, so I should substitute here, in many instances, the intestinal antiseptic (compound sulphocarbolate) tablets in connection with soda-mint tablets, ordering one of each every two hours. The intestinal-antiseptic combination is of extreme value in most forms of diarrhea and may be given with advantage to practically every case after the preliminary clean-out

In case the attack is attended with *fever*, *abdominal pain*, *tympanites*, and frequent liquid stools, the patient should of course be kept in bed, at absolute rest, and not even be allowed to rise for stools.

The Diet.—It will influence the progress of the case most favorably if all food is withheld for twenty-four or forty-eight hours, and if only barley water or rice water be allowed in small quantities, as a drink, to relieve thirst. Milk, sipped slowly, should be the first food given at the end of this time, and should be persisted in until the diarrhea has ceased. If not well digested, it may be diluted with lime water, rice or barley water, or made into a gruel with oatmeal or cornmeal. As improvement advances, the exclusive milk diet may be alternated with broths, but no solid foods should be allowed until the stools are normal.

The medicines appropriate to the early stage (and, I might add, throughout any stage of diarrhea) are the intestinal antiseptics, the best of all, in my opinion, being the sulphocarbolates, besides codeine, morphine or hyoscyamine.

Injections and Flushings.—Sometimes it may be necessary to wash out the intestinal canal with decinormal salt solution or with a 1 : 500 solution of the sulphocarbolates. After the expulsion of this solution, 2 drams of a 1 : 32 solution of aqueous extract of hamamelis in water, should be thrown into the rectum, pressure being made over the anus with a wad of gauze. This alone usually prevents tenesmus, which is very troublesome when the lower bowel is most affected. The good gained by this washing out of the intestines is hardly to be overestimated.

The number and frequency of the irrigation will depend upon the severity of the attacks, as judged by the frequency and character of the stools and by the constitutional symptoms, especially the fever. Two treatments daily may be sufficient, but as many as one every three hours may be needed to reduce the temperature and to arrest the movements and change their character. A lessening in the number of the stools and a disappearance of their putridity are indications

for lengthening the intervals between the irrigations.

The Abdominal Pain which frequently accompanies this disorder may be greatly lessened by the application of large hot fomentations or poultices, or better yet what are known as turpentine stupes. In cases where these measures cannot be readily employed, as on a journey, for instance, relief may be obtained by applying a hot-water bag. When a poultice is chosen, it is best not to apply it (as is sometimes done) directly to the skin or with only a thin bit of muslin between it and the body, for then it must either be allowed to become half cold or else the patient's skin will be scalded. More relief is afforded by putting two folds of flannel between the skin and the poultice, in which case it may be made very hot, and the heat, coming gradually through the flannel, does not hurt the patient.

Carminatives frequently lessen the pain greatly by rendering the peristaltic contractions of the gut more even, lessening spasm, and assisting the escape of flatus. A useful mixture is 1-2 dram of aromatic spirit of ammonia, 1-2 dram of compound tincture of cardamom, and 10 or 15 minims of spirit of chloroform. Sometimes a little camphor acts remarkably well as a carminative. The well-known chlorodyne combination owes its popularity largely to the effective use of carminatives. In children one of the best remedies of the class is Waugh's "anodyne."

In cases where *distention of the colon with flatus* is very great, relief may sometimes be secured by passing a long flexible rubber tube into the colon; still, usually the wind may be brought away by injecting some carminative or an enema of oil of turpentine. Probably the best of all injections for the relief of tympanitic distention is the official mixture of asafetida (about 4 ounces), although its disagreeable odor prevents it from being used so frequently as from its great power of relieving flatulence it would otherwise be.

Food Poisoning.—Diarrhea due to decomposed food or cheese or to mushrooms is best treated by clearing out the bowel with castor oil or frequent full doses of effervescent magnesium sulphate, but along with this atropine should be given, because *atropine is an antidote to muscarine* (the poisonous alkaloid of mushrooms) and to other toxic decomposition products of albumin. The 1-100 of a grain of atropine may be given every half hour or hour, either until the diarrhea has ceased or the symptoms of physiologic action have begun to show themselves in dryness of the mouth or dilatation of the pupils. Of course this remedy must be used under constant personal supervision, as it is hardly safe to leave it to the patient's friends to decide when the drug is to be stopped.

Starving Pathogenic Bacteria.—I wish to speak of a method of treating bacterial diarrhea other than by intestinal antiseptics. Bacteria seem to have the power of adapting themselves to change of nutriment and of manufacturing new ferments while this is digested, yet a certain time is needed for this adaptation, so if the food be rapidly and frequently varied, the bacteria may in a measure be starved. Thus, when milk has been the diet and the intestine has become infected with bacteria which live readily upon milk, the complete stoppage of milk for a while and substitution for it of farinaceous food exclusively will tend to kill off a large number of the bacteria thriving on milk. After a day or two other bacteria may multiply upon this farinaceous food, but if this again be suddenly changed for meat juice, a great number of these will succumb. Then, by reverting to milk, and repeating the course, all of the noxious bacteria may gradually be eliminated.

Chronic Diarrhea.—In all cases of chronic diarrhea the urine should be carefully examined, and if it be found to have a persistently low specific gravity and to contain a trace of albumin, great care must be taken not to check the diarrhea hastily by astringents or other means. In such cases the bowel forms the chief channel for elimination of products of tissue-waste, and if the diarrhea be quickly checked the *patient may die of uremia.*

Influence of Temperature.—In cases of tendency to diarrhea due to cold, or indeed

in all cases of chronic diarrhea or tendency to diarrhea, the abdomen should be kept warm and at an equitable temperature, either by a flannel bandage or by a silk scarf wound several times around the body. Attention must also be paid to the feet, the limbs, and the back of the neck, as a chill in those spots is not unlikely to recall the diarrhea or abdominal pain, even although the abdomen itself be kept warm.

Nervous Diarrhea.—Individuals so affected are to be treated by moral remedies. The patient should be encouraged to resist the frequent inclination to defecate, just as a patient with nervous irritability of the bladder is told to resist the desire to micturate. In one particular class of nervous diarrhea, namely that where the introduction of foods into the stomach arouses the immediate desire to go to stool, bismuth taken before meals tends to check the impulse. The same result is sometimes obtained even more easily by the use of 1-2 to 1-minim doses of Fowler's solution, in an ounce of water ten or fifteen minutes before meals, or better still by small repeated doses of strychinne arsenate. Sometimes it may be necessary to add a small dose of codeine, morphine or tincture of opium, but not to exceed what would be equivalent to 1-35 grain of morphine.

Other Forms of Diarrhea.—In cases of diarrhea depending on *locomotor ataxia*, small doses of antipyrin may prove useful.

Malarial diarrhea, although it resists the usual astringents, and antiperiodics, often readily yields to the arsenates of iron, quinine and strychnine. When in such cases the liver is much enlarged and tender, the cure may be quickened by the administration of calomel, bilein and podophyllin followed by a saline laxative. Thus the congestion of the liver is reduced before the quinine and the triple arsenates come into the field.

Morning diarrhea may generally be greatly relieved and sometimes entirely checked by the simple plan of telling the patient to take no liquid after five o'clock in the afternoon. All the liquids should be taken in the early part of the day. Persons, on the contrary, who suffer from *evening diarrhea* should take the liquid late at night and very little during the early part of the day. In all cases the use of alcohol should be carefully regulated.

In cases where diarrhea depends upon *prolapse of the sigmoid* flexure into the rectum, it should be treated by avoiding all articles of food likely to pass through the intestines undigested and thus irritating to the tender portion of the gut. The bowels may be kept open by means of an enema of 8 ounces of water of normal salt solution in the morning, while immediately after the action an astringent injection of 1 or 2 drams of catechu tincture in 2 ounces of water should be thrown into the bowels and retained there. The mixture previously mentioned, namely, 1 : 500 solution of sulphocarbolates, with the addition of 2 ounces of calendula, makes a very excellent solution for this purpose. If then this is followed by 2 drams of a mixture of a 1 : 32 solution of aqueous extract of hamamelis in water, thrown into the rectum as directed above, you will get excellent results.

If there be undue irritation in the sigmoid flexure, some soothing ointment may be introduced into the intestine by means of an ointment carrier. If a short rubber tube be attached to the ointment carrier, the remedy can be passed well up into the sigmoid.

In cases of *obstinate chronic diarrhea*, more especially where dysenteric or ulcers are supposed to be present, large clysters of disinfectant and astringent solutions often are useful. For this reason a pint or more of the solution should be employed in the manner as directed for the softening of scybala. These clysters may consist either of plain warm water, normal salt solution, or a thin starch paste to which are added appropriate sedatives and astringent substances, such as the sulphocarbolates, bismuth carbonate (5 to 10 grains per ounce), boric acid (1 grain per ounce), salicylic acid (1 1-2 grains per ounce), thymol (1-8 to 1-4 grain per ounce), silver nitrate, copper sulphate or zinc chloride (1-2 to 3 grains per ounce). The clyster should be retained as long as it can be with comfort.

Owing to the risk arising from absorption, *powerful poisons* like corrosive sublimate,

mercury iodide or carbolic acid should *never be used.*

Malignant Disease of the Bowel.—Here relief may be afforded by a sedative suppository containing atropine, morphine and cocaine. If the diseased part of the bowel cannot be removed, the bowel should be kept open by means of warm-water enemas thrown up high enough to pass beyond the obstruction and soften the feces above, so as to prevent any hardened mass coming down upon the constricted portion and thus giving rise to sudden obstruction. When obstruction threatens, an artificial anus must be made.

When a diarrhea is due to malignant disease of the descending colon or of the sigmoid flexure, relief may be afforded by opening the abdomen and connecting the bowel above and below the diseased portion, so that the fecal matters pass by the affected part instead of through it. The operation of complete excision of the diseased part with union of the ends of the intestine has not been as successful as most of us have hoped.

Hygienic Measures.—In the treatment of chronic diarrhea absence from home and from work, change of scenery, mental rest and diversion are very important. Ordinarily such influences, however, are of too short duration to effect permanent results, less than two months' rest and absence being generally ineffective, while in many cases, if neurasthenia is a complicating condition, as it often is, from six months to a year are required. Treatment at home should aim at improving the state of the nervous system and digestion, by recreation, outdoor exercise, especially horseback riding, by massage, light gymnastic exercises, and baths with friction.

As to diet, it may be necessary only to make out a list of digestible foods and one of those articles that should be avoided, insisting upon regularity of eating and complete mastication. In obstinate cases, starch, sugar and salt should be taken in minimum quantities, and the diet of milk, rare scraped beef, rice and light stale bread should be followed for a month before being changed. It is not often that an exclusive milk diet is required for such patients, although the objection to milk is that it is constipating; but this is no argument against it. The constipation being due to catarrh, no treatment avails until the cause is removed and the diet of milk alone will sometimes be necessary before a cure can be brought about. Pepsin and hydrochloric acid diminish the work of the intestine when taken immediately after food, while some preparations of pancreatic extracts may be of more direct service if given an hour to an hour and a half later.

There is one remedy which acts remarkably well in some of these cases of chronic diarrhea that have persisted for years, and that is, very small doses of mercury bichloride, in doses of not more than 1-100 of a grain.

GEORGE F. BUTLER.

Chicago, Ill.

MANAGEMENT OF ENTERITIS

Get Rid of Intestinal Irritant.—In all forms of intestinal disease the cardinal principle governing therapeutics is that the existence of irritation presupposes the presence of an irritant.

Removal of the irritant is to be effected by means that in themselves do not add to the irritation by undue stimulation of the inflamed tissues.

Small doses of saline laxatives or castor oil, meet the indication admirably in many instances.

There is nothing better, if as good, as the ancient mixture commonly known as neutralizing cordial reinforced by antiseptics. The following is good:

Sodium carbonate, 1 dram; sodium sulphocarbolate, 1 dram; wine of ipecac, 2 drams; tincture of hydrastis, 6 drams; alkaline syrup of rhubarb, to make 6 ounces. Dose, for an adult, a tablespoonful every two to four hours until the stools become natural, healthy-looking, free from abnormal odor.

No single active principle exactly replaces rhubarb, but this formula may be thus translated into modern parlance:

Juglandin, gr. 1-2; emetin, gr. 1-67; hydrastin, gr. 1-3; copper arsenite, gr. 1-250;

leaving the alkali to be added in form of a bit of baking soda.

The Best Diet here is no diet at all, except an abundance of pure water; better taken hot than cold.

If something more is thought necessary, give small cups of very hot strong coffee without sugar or cream, at stated intervals. However, this black coffee is rather to be looked upon as the indicated stimulant than as a food, and replaces all forms of alcohol.

The raw white of egg in cold water is the most likely to be assimilated without needing digestion; give one egg-white every two to four hours.

Barley or rice water does excellently when given every four hours in connection with a little diastase, to insure perfect digestion.

As a rule those foods digested in the stomach are better than those that demand action from the inflamed bowel.

Clear, strained animal broths are useful; consulting the patient's taste as to the selection of oyster, clam, chicken, lamb, etc.

Whenever the attack has lasted over a week begin the daily use of some pure, freshly pressed fruit juices; a gill a day. Use whatever fruit can be had at the time and place and that the patient craves—grape, apple, peach, grapefruit, orange, pineapple.

Any food given should be fed with a spoon, taking a quarter hour to eat (not drink) a gill of it, so that digestion may begin in the mouth.

Hot applications over the abdomen and small hot enemas are grateful and aid in relieving the inflammatory hyperemia.

Combating Inflammation and Fever.—If intestinal inflammation runs high, it is well to paint the abdomen with iodine or rub in the silver salts, like collargolum.

Fever, headache, pain, nausea, tenderness, with diarrhea, result, usually, from taking cold. Give veratrine, gr. 1-134, every two to four hours. Robust, plethoric persons, with active inflammation, need veratrine in the doses mentioned, to allay the activity of the process.

Vomiting and purging of summer diarrheas often subside under the antiphlogistic action of *minute* doses of veratrine, when larger ones would irritate. Aconitine, in similar dosage, replaces veratrine when the latter would irritate the stomach or cause depression.

The Alvine Discharges.—Fetid stools, pain and straining, or vomiting due to spoiled fish, etc., demand calomel, gr. 1-6 every half hour for 7 doses; then saline purges.

Clay-colored fetid stools in all cases require these little doses of calomel followed by a saline laxative.

Slimy, bloody stools, with tenesmus and tormina, respond speedily to corrosive sublimate, gr. 1-134 every hour or two.

Malarial Forms, and declining stages needing a tonic to the debilitated tissues, do well on cornin, gr. 1-6, every two hours.

Green stools, frequent and painful, with vomiting, and also alcoholics and nervous people, do well on emetin, gr. 1-67 every hour or more. Emetin and juglandin each acts in restoring healthy digestive secretions to replace those vitiated by disease.

Malarial, periodic, and recurrent cases, with jaundice, respond to quinine arsenate, gr. 134, or quinine hydroferrocyanide, gr. 1-67, every hour or two.

Morning diarrheas with cutting pains subside under the use of podophyllotoxin, gr. 1-134 to gr. 1-67 every two hours—big doses irritate.

Dark, fetid stools always call for podophyllotoxin in small, frequent doses. *Don't use podophyllin,* but instead cultivate the pure-drug habit and use podophyllotoxin.

Lienteric diarrheas with gastric irritation respond nicely to sodium arsenate, gr. 1-134 every two hours—for an adult, of course.

Passing food too quickly after eating, undigested, is the indication for the small doses of sodium arsenate or copper arsenite.

Membranous enteritis and dysenteric forms becoming chronic respond to the small doses of arsenic in either form mentioned.

Choleraic diarrhea from cold or bad air and water sometimes demands stimulants, to arouse reaction—monobromated camphor, gr. 1-6 every ten minutes.

Dyspeptic diarrheas, with mucous stools and acute hemorrhoids, do well on anemonin, gr. 1-134 every half to one hour.

Chronic Forms, declining stages, with relaxation, often respond well to quassin, brucine or other bitter tonics, in small doses.

Fetid stools, flatulence, of decomposition or fermentation, demand zinc sulphocarbolate, gr. 1 to grs. 5 every one to three hours. The same conditions, with irritability of the stomach or acidity, call for sodium sulphocarbolate in double the doses of the zinc salt.

Declining stages, hemorrhagic, scrofulous or other cachectic cases, do better on calcium sulphocarbolate dosed as the sodium salt.

The three sulphocarbolates apply in about every form and stage of every sort of diarrhea to which man or child is liable; all need disinfection.

Chronic diarrheas, white stools, typhoid and tubercular enterites, ulcers of the intestines, do well on silver oxide, gr. 1-6 every four hours.

After giving a total of one dram of silver, stop for fear of argyria, and replace it with zinc oxide in triple the doses of the silver. Good also for alcoholics.

Morning diarrheas sometimes subside nicely under rumicin, gr. 1-6 every hour; especially if anemia has supervened.

Bismuth subnitrate is a powerful local sedative and a coat of it over any inflamed surface gives great relief. Give by the dram, if at all.

Infantile and phthisical forms are said to be quickly relieved by helenin, gr. 1-67 to gr. 1-6 every hour till relief is established.

Opiates.—The only indication for opiates is to lessen excited peristalsis; morphine is a perilous remedy in any form of bowel trouble. If you must use any opiate let it be codeine, in doses of 1-8 grain, and only enough to restrain excited peristalsis.

Chronic, persistent diarrheas in the aged sometimes do better on copper sulphate, gr. 1-12, every two hours, than on anything else.

Relaxation of the intestinal and gastric walls may demand a few full doses of ergotin, grs. 3 within each twelve hours.

Chronic cases with decided relaxation may require tannic acid. Give 1-6 grain after every stool—the dosing will then be automatically regulated.

Cotoin and Tuberculosis.—Cotoin is said to be so exactly suited to true tuberculous diarrheas that when it helps, this diagnoses the case as tuberculous. Give of cotoin, 1-67 grain every hour, until it has afforded the desired relief; then divide the dose into three and give one one-half hour before each meal.

Teething diarrheas, and a few other forms, do well on a little aromatic stimulant, as for instance, menthol, gr. 1-12 every quarter hour till cramps cease.

Somebody with homeopathy on the brain has advised croton oil in doses of 1-134 grain for colicky cases. We do not need it.

Salol, carbolic acid, creosote, resorcin, naphthol, all the older antiseptics, have been wisely replaced by the sulphocarbolates. Better and safer.

Rachitic, tubercular and other colliquative diarrheas need calcium lactophosphate, about 15 grains a day, to reinforce the cell-walls.

It is a pleasure to have at hand exactly the right remedy for every form of a malady that may be presented, instead of just something that may do.

Men who use opium or whisky for all diarrheas seem to think they are really physicians!

W. F. Waugh

Chicago, Ill.

COMMENT ON THE LESSON

This month the number of students commenting on the lessons is rather small, but the comments which we are printing are long, and, incidentally, excellent. Please read then carefully. By the way, we want to urge those taking the course to submit original material, either in the way of comment or records of experience, with a special view to its appearance in this department.

Next month we shall begin a discussion of the diseases and disorders of the stomach. This is a field of peculiar interest. It is regrettable, but true, that the average phy-

sician is rather at sea when he gets hold of a case of "dyspepsia," so called. The classifications of gastric ailments given in the textbooks seem involved and hard to understand. In our opinion they are made to seem harder than they really are. We shall attempt to simplify, and present the facts in a practical way, which will really aid in outlining treatment. Methods of handling these diseases will be gone into with much detail.

The next few months we shall give up largely to the discussion of visceral diseases, those of the liver and kidney coming first. We shall try to make this course peculiarly interesting. We therefore urge every reader of CLINICAL MEDICINE to begin its study at once and to continue it during the coming year.

Dr. Neiswanger and his colleagues will add their full quota to the course, taking up the physical-therapy side.

Experience With Smallpox and Vaccination. Dr. Theo. Schmalzriedt, of Detroit, Michigan, has given us an unusually interesting paper on smallpox. Dr. Schmalzriedt has had a very extensive experience with smallpox, and we quote freely from his paper. The doctor writes as follows:

"During my eight years' service as health officer of a large and densely populated township immediately adjoining the city of Detroit, I had occasion (from 1900 to 1902) to treat more than 60 cases of smallpox in its various forms of variola confluens, discreta, hemorrhagica and variola sine eruptione; also some cases of varicella and one of vaccinia. (The one hemorrhagic case and one of the discrete cases died; all of the confluent cases recovered.) I vaccinated and caused to be vaccinated several thousand people.

"I had the unusual opportunity of observing the mode of infection, the period of incubation, extraordinary susceptibility to and unusual immunity to the disease, as well as the protective influence of vaccination in quite a series of cases.

"It would involve too much time-consuming labor to go through all of the records, so I will confine myself to abbreviated quotations of excerpts from a paper which I presented in 1900 before the Wayne County Medical Society, relating my experience with 27 cases which had occurred up to that time. My subsequent cases confirmed the experiences with this first series of cases.

"The mode of infection in 19 cases traced has been by direct and close contact. There has been no evidence that contagion was carried by an intermediate person or object.

"In 16 cases observed, the period of incubation varied from seven to twenty-three days, with an average of twelve days in the unvaccinated cases resulting in variola, and of seventeen days in the vaccinated cases resulting in varioloid.

"Extraordinary susceptibility was shown in 4 families consisting of 21 persons, of whom 16 had the disease in some form. The reverse was shown in 3 other families of 18 persons, of whom only 4 were taken sick.

"Instances of immunity were a child of four and a young lady of eighteen who refused vaccination, though continually exposed, a wife and a nurse in whom vaccinations would not become effective and who did not take sick, though continually exposed.

"Of 30 exposed females, 18 contracted the disease. Of 29 exposed males, 9 contracted the disease, showing females twice as susceptible as males.

"Between the ages of two and twelve years there were 2 cases of variola and 4 of varioloid. Between the ages of sixteen and twenty-seven years there were 11 cases of variola and 2 of varioloid.

"The severity of the disease seemed proportionate to the time of and the susceptibility to vaccination. Persons vaccinated early and those in whom vaccination became speedily effective, either escaped the disease altogether or had a very light form of varioloid. Those who were not vaccinated until a considerable number of days after exposure and those in whom vaccination became effective only after six or more days had elapsed, showed a greater number of sick, and these a more severe form of the disease.

"Of individual instances, I will cite the following:

"In the home of Howard P., a farmer, there resided beside himself, his wife, his mother, his sister, his grandfather and a boarder who worked on the railroad. The boarder contracted smallpox. I first saw him when he was in the pustular stage. He had been about the house and at the table during the whole of his illness. We removed him to the smallpox hospital at once, Mr. P. assisting me in placing him in the ambulance.

"I at once vaccinated the five members of the household, this being the seventh day of their exposure. The grandfather had several old vaccination scars and no 'take' resulted. Mr. P.'s mother and sister showed good 'takes,' and remained protected. Neither Mr. P.'s nor his wife's vaccination showed signs of taking, therefore six days after the first vaccination—which was now the thirteenth day after first exposure—I revaccinated both of them. Mr. P.'s first vaccination became effective on the fourteenth day of exposure, the second vaccination on the nineteenth day of exposure. His wife's first vaccination became effective on the sixteenth day of exposure, the second vaccination on the twenty-first day of exposure. Mr. P's first vaccination incubated seven days, the second vaccination six days. His wife's first vaccination incubated nine days, the second vaccination eight days.

"On the nineteenth day after the first (and the twelfth day after the last) exposure, which was also the twelfth day after the first vaccination, and respectively, five and three days after the first vaccination became effective, both took sick. His wife, who was eight months pregnant, had a temperature of 106.2° F., pulse 180, incessant vomiting. On the second day (which according to Sydenham's dictum would show the tendency of her attack to be of a confluent type) a profuse, scarlatina-like rash covered the body. On the third day vomiting ceased, diarrhea set in, temperature 103.6° F., pulse 140. (This temperature was probably influenced by putrefactive toxemia, so common in the latter months of pregnancy, but in 1900 neither I, nor any one of my acquaintances, knew anything about such a condition.)

"On the fourth day she miscarried, child and placenta being delivered before my arrival.

"On the fifth day vesicles were well formed, umbilicated, and showed pustulation on the seventh day. The pustules began to dry up on the ninth day so that by the eleventh and twelfth day the crusts were rapidly cleaning off, showing, beyond doubt, the mitigated influence of the vaccination on the disease.

"On the eighth day her temperature rose and, as the pustules had formed, I took it to be the secondary fever, but by the tenth day I concluded that I had a case of puerperal septicemia. I curetted away some placental tissue, but she continued to grow worse and died on the twelfth day. Autopsy showed some firmly adherent placental tissue, a large number of ulcerous spots, and the walls of the uterus bathed with pus. While vaccination had rendered her disease milder, it was performed too late to prevent it entirely and intrauterine pustulation and placental decomposition ended her life. Her child lived and did not show a mark nor blemish on her body.

"I attended three other pregnant cases of variola confluens and discreta. During their illness these women were respectively six, six and seven months pregnant and carried to full term. Only one child showed about eight or nine deep pits on her body.

"Mr. P. also became sick on the nineteenth day after first exposure. There were chills, high temperature, headache, backache, and extreme weakness. These symptoms would moderate for twenty-four hours and then reappear with the same intensity. This went on for a week and then gradually ceased. No rash nor eruption of any kind appeared.

"Who will question that, under the above related circumstances, this man's vaccination protected him from an attack of smallpox? It is not a supposition, but a case positively proven.

"I could relate other instances, but my report is assuming such length that I will

only cite one other very interesting occurrence—one which goes to show that the physician should not forget himself while taking care of smallpox patients.

"I was successfully vaccinated as a child, some twenty or more years before my attendance upon these cases. In 1894 I was twice unsuccessfully vaccinated. In 1897 I took advantage of an opportunity which presented itself to see a case of smallpox and was again twice unsuccessfully vaccinated. In March, 1900, when the first case appeared, and again in May, 1900, I was unsuccessfully vaccinated. In July, 1900, after having been in close contact with patients while making stethoscopic and digital examinations, getting inhalations of the fetor from their pustulating bodies for long periods at a time, etc., with a number of cases every day for four months, I became somewhat uneasy lest this continual exposure to the disease, together with an enfeebled constitution caused by prolonged strain and overwork of body and mind, should predispose me to an attack of the disease. While not actually sick, I had that 'all in' feeling which denotes that vital resistance was low. I became apprehensive and had a fellow physician vaccinate me, then went home and vaccinated myself on the other arm. Both vaccinations *took*. Maybe I wasn't thankful that I was not an anti-vaccinationist! My protection of over twenty years' duration had 'run out,' and but for this fortunate revaccination, in my condition of lowered resistance, I should soon have fallen a victim to my daily exposures to smallpox, I fully believe. I agree with Dr. Waugh when he says, 'I know vaccination protects.' "

Treatment of Smallpox.—Dr. R. W. Halladay, North Edmonton, Alberta, Canada, has some interesting things to say regarding the treatment of smallpox. He writes:

"Keep the bowels active by the use of effervescent magnesium sulphate, and as sterile as possible with the sulphocarbolates. Keep up renal elimination by the free use of water, buttermilk and lemonade. Control fever by means of aconitine alone or in combination. Restrain the activity of the infectious element by arsenic and calcium sulphides, adding nuclein, grs. 10 t. i. d., and echinacea when suppuration begins. Keep the mouth and nose clean by the use of antiseptic sprays. Restrain delirium and excitement by hyoscine or H-M-C hypodermically. Mild excitation is relieved by the valerianates or monobromated camphor.

"Guard the eyes with boric-acid lotions and hot compresses. If adhesion of the lids threatens, smear the edges with yellow oxide of mercury ointment, 50 percent of official strength.

"Diarrhea yields to the sulphocarbolates; if it fails, a few granules of cotoin or lead acetate with opium will be found effective. Restrict the diet to liquids, adding gruels, farinaceous preparations, custards, jellies, etc., gradually, during convalescence."

EXAMINATION QUESTIONS

1. What does the color of the stool show in a case of diarrhea? What is the significance of the presence of skatol in the urine? of indican?

2. What is the significance of bile in the feces? of blood? of undigested food? What intestinal trouble may be indicated by eosinophilia?

3. Why should patients suffering from acute diarrhea be given cathartics? Which cathartics are most generally useful and how should they be selected to meet indications?

4. Under what circumstances should astringents be used? Tell of those that you employ and how you use them.

5. What would you give to arrest the pain and tenesmus in a case of acute diarrhea? Suggest some useful combinations.

6. What is your opinion as to the value of intestinal antiseptics in this disease, and how and when should they be given?

7. When are rectal irrigations of value? Tell how to apply this procedure.

8. What is the essential cause of most cases of food poisoning? Why should atropine be used in some of these cases?

9. Suggest a dietetic regimen for a case of diarrhea. Why may some alternation of food be desirable?

10. Describe one case of chronic diarrhea (preferably one that occurred in your own practice) and outline treatment.

11. Give treatment for malarial, tuberculous and dyspeptic diarrheas.

HAMILTON-MUNCIE'S "FOUR EPOCHS OF LIFE"

Four Epochs of Life. By Elizabeth Hamilton-Muncie, M. D., Ph. M. New York: Greaves Publishing Company. 1910. Price, cloth, $1.50 net. This interesting and valuable book is discussed in detail in the editorial department of this issue.

COOPER'S "SEXUAL DISABILITIES IN MAN"

The Sexual Disabilities of Man and Their Treatment. By Arthur Cooper. New York: Paul B. Hoeber. 1909. Price $1.00.

A handy little volume in which the causes and treatment of the various conditions leading to sterility or impotence in man are considered in a clear and dignified manner. The physiology and pathology of the sexual life are discussed with considerable lucidity, showing wide practical experience; the treatment is based upon sound and common-sense principles. The book is useful for the general practician.

STODDARD'S "THE QUEST"

The Quest. By Dr. Thomas A. Stoddard, Pueblo, Colo. The Cochrane Publishing Company, New York. 1909.

The little volume before us awakens strange reminiscences in the reader, who is wondering whether he is perusing a chapter of Prescott's "Conquest of Mexico" or of Stanley's "Darkest Africa," or whether he has before him a novel intended to while away an idle hour pleasantly.

The author has traveled extensively in that part of South America which is drained by the Amazon and the Orinoco and in which the scene of the principal portion of the story is placed, and it is fully impressed upon the reader that the descriptions of the scenery and of the aboriginal tribes encountered are written from personal observation. We wonder, on following the complications and final unfolding of the quite clever plot, just where truth ends and fiction begins, and are tempted to go and see for ourselves. The few Indian tribes that appear to be descendants of the old Peruvians, dear to us from Prescott's vivid descriptions, are particularly attractive, and the desire to investigate them is strong.

As already said, the plot is clever, although hardly new. A country physician practising in Maine loses his full consciousness through a brain injury received at the hands of a burglar. Functioning in a state of subconsciousness, he makes use of an opportunity to take ship to South America, where he eludes his friends and penetrates far into the interior, being finally found by a tribe of friendly Indians, the descendants of the Incas of Peru, to whom he becomes a teacher, so that they develop the natural resources of their beautiful country in a surprising manner and attain to a high degree of civilization. Here he is finally found—but we do not wish to tell too much since that would curtail the enjoyment to be derived from reading the book.

Somehow we are inclined to forgive the author for expecting us to believe that the civilizing of aboriginal tribes, the complete cultivation of the country, the building of

hospitals, and so on, has all been accomplished in five short years. It is a charming fairy tale with a basis of truth, and like all good fairy tales it has interwoven in its passages many sound thoughts and precepts, especially a strong and emphatic insistence upon the Golden Rule. In spite of the improbabilities and impossibilities we enjoyed the book.

WINSLOW'S "CLEAN MILK"

The Production and Handling of Clean Milk, Including Practical Milk Inspection, by Kenelm Winslow, M. D., M. D. V.; and Essentials of Milk Bacteriology, by H. W. Hill, M. D. Second edition. New York: Wm. R. Jenkins Company. 1909.

The aim of this book is to provide a working guide for those pursuing or wishing to pursue one of the most wholesome, worthy and laudable undertakings, the production of clean milk. The author is a graduate not only in human medicine, but also in veterinary medicine and in agricultural science, and has had abundant experience in the production and examination of milk, so that he may be said to speak authoritatively. While it is impossible for the general practician to keep fully informed on all phases of medicine and the allied sciences, the sister-, or perhaps better, daughter-science of medicine, namely, prophylaxis, is of such enormous importance that he properly feels it incumbent upon him to have at least a sufficient working knowledge of its various aspects so as to be able to give intelligent advice.

In the exercise of prophylaxis nothing may be advanced as of greater importance than the feeding of infants and of invalids, and since milk has always played and probably always will play an important role among the food-stuffs for infants and invalids, it is necessary that the physician should have a knowledge of the chemistry of milk, but still more of the mode of producing it and of the various possible contaminations to which it may become subjected in the transit from the barn to the kitchen. The work before us affords information on all these and on many other points which are of value to physicians interested in the question of our milk supply; it also is a valuable guide for health officers and for laboratory workers engaged in the examination of market milk.

McCURRY'S "PRACTICAL POINTS"

A Book of Practical Points Gathered from Various Sources, Gleaned from Many Minds, with Chapters on Hookworm and Pellagra. By J. H. McCurry, M. D. Grubbs, Arkansas. 1910. Price $1.00.

This is a valuable little volume containing, as the title indicates, practical points from many sources. It shows the value of wide reading and of indexing that which is of merit and importance. The author evidently has the scrapbook habit, and he must have found his collection such a treasure trove for suggestions and for information in his daily work that he decided to let others share in his wealth.

It would lead us too far to indicate in detail the contents of the book; they are as varied as is the experience of a busy practician, and are as well selected as a well ordered brain and balanced mind can perform. In fact the various items and quotations are culled with rare discrimination and aptness, and the whole forms splendid reading for an odd leisure moment, no less than for deliberate study.

The book is well indexed and its value for the reader is increased by its being interleaved for annotations and additions. By all means sit down and mail your dollar to Dr. McCurry; the book is worth it and you will get many times a dollar's worth from its perusal and study.

LONG'S "A DOCTOR TO HIS SON"

Lines from a Doctor to his Son, or Knowledge vs. Ignorance. By J. I. T. Long, M. D. Published by the author.

A very readable little book of 216 pages which by no means resembles in its tone nor is written in imitation of the books by various putative fathers to their respective

sons, for although it teaches a lot of common sense, these lessons are not couched in the popular slangy language, but the author is terribly in earnest. Neither does he mince matters in condemning in emphatic terms ignorance, laziness, carelessness, and other vices. On the other hand, he is full of sympathy in his advice.

The author is fond of epigrammatic speech. For instance: "You may succeed without money, but you cannot succeed without physical and mental capital." "Seventy-five percent, if not more, of all sickness, suffering and cost [due to them] is avoidable. ...Cancel all the sickness and affliction attributable directly or indirectly to ignorance, plus heredity, and you may turn your hospitals, medical schools and drugstores into business or playhouses. ...It pays handsomely to live close to nature, and it is fearfully costly to transgress her laws."

The author castigates the many sins of commission and of omission in the training of children and adolescents which help to produce the many neurasthenic patients now encountered, and also gives wholesome advice on many important subjects concerning right living which make the book a useful means by which the physician may teach his young charges.

KERLEY'S "DISEASES OF CHILDREN"

Treatment of the Diseases of Children. By Charles Gilmore Kerley, of the New York Polyclinic Medical School and Hospital. Second Edition, Revised. Philadelphia and London: W. B. Saunders Company. 1909. Price $5.00.

In our review of the first edition of this valuable book (1908, p. 137), we said: "To forestall the censure that may justly be raised against the practice of some textbooks copying from one another, the author assures us that the means and suggestions herein are not drawn from the literature but from experience based upon a somewhat extensive application of the principles evolved by the author in private practice." This, we said, is the best reason a book can have for its existence, and this we say here again, with the addition that the "reason" for this second edition is still greater. We wish this book the widest circulation among general practicians and specialists.

SAALFELD'S "COSMETIC TREATMENT"

Lectures on Cosmetic Treatment. A Manual for Practitioners. By Dr. Edmund Saalfeld, in Berlin. Translated by J. F. Halls Dally, London. With an Introduction and Notes by P. S. Abraham, London. New York: Paul B. Hoeber. 1910. Price $1.75.

There is no manner of doubt that the branch of dermatology of which the present volume treats is all too much neglected by the dermatologist and still more so by the general practitioner, and that through such neglect not only do both lose a good addition to their income, but their patients are attracted to unscrupulous charlatans, to their financial disadvantage, and generally without any benefit.

It would be well for every physician to familiarize himself with the cosmetic troubles and ills and their proper treatment; his patients expect it of him, and justly so, and his success in such lines will richly repay him. The author is a well-known specialist in this branch of dermatology and offers excellent advice, which has been well translated.

THE PRACTICAL MEDICINE SERIES

"Pediatrics," edited by Isaac A. Abt, M. D., with the collaboration of May Michael, M. D., and Orthopedic Surgery, edited by John Ridlon, A. M., M. D., with the collaboration of A. Steindler, M. D. Series 1909, Volume VII.

"Materia Medica and Therapeutics; Preventive Medicine; Climatology," edited by George F. Butler, Ph. G., M. D.; Henry Favill, A. B., M. D.; and Norman Bridge, A. M., M. D. Series 1909, Volume VIII.

"Skin and Venereal Diseases; Miscellaneous Topics," edited by W. L. Baum, M. D., and Harold N. Moyer, M. D. Series 1909, Volume IX.

"Nervous and Mental Diseases," edited by Hugh T. Patrick, M. D., and Charles L. Mix, A. M., M. D. Series 1909, Volume X.

These four volumes complete the series for 1909 of this excellent collection of semi-annual reviews of the literature of the world on the subjects indicated by the titles.

The Practical Medicine Series has become too well established in the favor of practicians who have neither the opportunity nor the leisure for literary research to need our further recommendation. Its success shows that the books fill their purpose admirably, presenting as they do the most important facts of what is best and most valuable in current literature, while the names of the respective editors, all specialists and acknowledged authorities in their work, vouch for the necessary discrimination in the selection of the material. Only one who has waded through the mass of current and all-too-often ephemeral literature can realize, as the Bookworm fully does, the immense amount of work required to get out these little volumes, and can properly appreciate the excellence and importance of these review-series.

We cordially recommend to our readers to subscribe for these serials, from year to year. They will enable their owner (providing he peruses them carefully) to keep fully in touch with the rapidly changing phases of medical science. The price of the ten volumes of each series is ten dollars; that of each volume, when sold separately, varies from one dollar to one and one-half dollars.

The books are published by The Year Book Publishers, 40 Dearborn Street, Chicago.

DUNS' "CARE AND FEEDING OF CHILDREN"

The Practical Care and Feeding of Children. By Mary A. Duns. Second Edition, Revised and Enlarged. Chicago: The Chicago Medical Book Company. 1909. Price $1.50

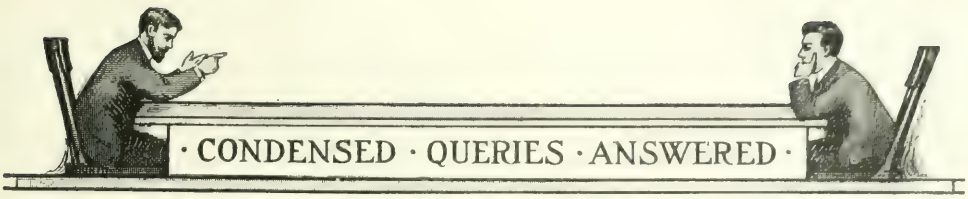
This is one of those books which the physician who has much to do with children should possess in his library for the purpose of loaning it to the mothers of his little patients. The author, a graduate of the Woman's Hospital of Chicago, is an experienced and excellent obstetric nurse and has had a large experience in the care and feeding of children. The subject-matter itself is introduced by some most flattering expressions by well-known Chicago physicians concerning the ability of the author in her chosen field, both as a nurse and as a teacher. We wish her continued success and hope that her book will live through many more editions, for the benefit of the Little Ones.

PONCET AND LERICHE'S "RHUMATISME TUBERCULEUX"

Le Rhumatisme Tuberculeux. By Prof. A. Poncet and Dr. Leriche. Paris: Doin et Fils. 1910.

For about a dozen years Professor Poncet has persistently called the attention of physicians to what he terms tuberculous rheumatism. When we read his first communications on the subject, we were greatly astonished to find a disease included in the class of tuberculous disorders which we had been accustomed to consider as rather antagonistic to tuberculosis than otherwise. We had even given to our arthritic patients the slight consolation of a promise that they would at least never become tuberculous. Dr. Poncet has changed all that, and, by the force of his persistent researches and of the intensity of his convictions, which he defends with remarkable talent, he has finally succeeded in disturbing opinions that seemed to be well settled.

The task which Poncet has set himself, namely, to prove the tuberculous etiology of certain acute joint affections usually called rheumatic, is by no means easy, for not only do they run counter to the current ideas on the general pathology, but he has failed so far to afford other than clinical proofs in support of his assertions.—Review from *Gaz. des Hp.*, Feb. 23, 1910



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

QUERIES

QUERY 5635.—"Regional Anesthesia." J. H. L., Indiana, wants a concise work on regional local anesthesia, but no such work seems to exist although there is great need of such a compilation to which the busy everyday practician may turn for information to determine the exact locality where to inject an anesthetic to block, for instance, a nerve-trunk, and the like. He also would like to know the best work on anatomy.

To the best of our knowledge no concise work upon local anesthesia exists. You will find excellent chapters upon this subject, however, in Wharton's "Minor and Operative Surgery," Van Shaick's "Regional Surgery," while most of the other modern works upon minor and general surgery cover the subject of local anesthesia more or less thoroughly.

Several other books of this nature may be mentioned that are excellent and may interest you. "Anesthetics," by Hewitt (London), is one of these. The administration of chloroform, ether, ethyl chloride, etc., is here minutely described. The various accidents which may occur are pointed out, and precautionary measures are suggested. In fact, Hewitt's "Anesthetics" is about the most complete work on anesthesia extant.

Another very practical but smaller book is Boyle's "Practical Anesthetics," published in 1907. And, lastly, a still smaller book (thoroughly practical, however) is "Practical Points in Anesthesia," by Frederick Emil Neef.

As to works on anatomy, Pearsol's is considered by many competent men to be the most perfect work on the subject. This "Anatomy" is a large volume, and the price is $7.00. Gray's (new edition—Da Costa) makes a very close second. Lee Brothers issue this work. Cunningham's "Anatomy" (Wm. Wood & Co.) has many admirers and is an up-to-date and thoroughly reliable book. The "Atlas and Textbook of Anatomy," in three volumes, at $6.00 per volume, is a beautiful work, and were the writer purchasing, he should feel inclined to choose these books. For the working physician Eisendrath's "Clinical Anatomy" will prove extremely useful and perhaps be of more practical value than such works as Gray, Cunningham or Pearsol. The price of that work is $5.00.

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QUERY 5636.—"Internal Use of Adrenalin." W. L. McL., West Virginia, considers CLINICAL MEDICINE the leading medical publication of the country. He asks what has been the result of the internal use of adrenalin, and if any bad effects have been observed? Has anyone noticed any renal congestion during the use of the drug or afterward? He would be glad to have the opinion of the editor also.

"I am," he says, "the pioneer user of the dosimetric system in this neck of the woods, and although not physically able to do much active practice, still swear by the granules."

In our own practice, using as we do the small dose, bad effects rarely if ever follow the exhibition of preparations of the adrenals.

Sajous, in a very instructive paper published in the *Monthly Cyclopedia and Medical Bulletin* for February, 1910, remarks:

"The doses advocated may appear small to many. In explanation I can only urge that the power of the adrenal principle as shown by physiological chemists and my own investigation is such that it should be used with the greatest circumspection. Several recently reported deaths from its use emphasize the need of precaution when employing the hypodermics, intramuscular and intravenous methods. Their oral use [i. e. small doses of adrenalin] is at best unreliable. This does not apply to that of the gland itself, nor to the desiccated gland, one grain of which represents six grains of the gland substance. These prove quite effective, though slowly in most instances, when the disorder or condition present actually involves the need of the adrenal principle, to enhance either the oxidizing power of the blood or its immunizing properties."

We agree with Sajous that the principle of the adrenals is such an extremely active agent that it must be used not only in small doses but with considerable caution. We know, of course, that the adrenal principle raises the blood pressure by increasing the tone of the vascular and cardiac muscles. We also know that injections of adrenalin may produce glycosuria or changes in the arterial walls. Sajous points out that in order to define with scientific accuracy the therapeutic use of adrenal preparations, the purpose or function of the adrenal secretion in the organism must be known. As a matter of fact, many effects traceable directly to the adrenals have not been definitely analyzed. The modern therapeutist finds in adrenalin a most satisfactory constringing agent, hence, uses it largely for the purpose of controlling or preventing hemorrhage. Applied locally to mucous membranes, blanching of the part results, the effect being the stimulation of the muscular fibers in the vessel-walls. It is not followed by relaxation and congestion such as will be noted after the application of cocaine. It should be remembered that adrenalin acts upon the vessel-walls and not through the centric vasomotor influence.

Given internally, adrenalin slows the pulse by stimulation of the vagus and by increasing arterial pressure, owing to the contraction of the muscular coats of the blood vessels. The effect is transitory, however, the drug being unable to maintain its primary influence. By stimulation of the muscular fibers the force of the systole is increased, the effect of the drug being somewhat similar to that of digitalis, but evanescent and less positive. The pulmonary vessels are not affected by adrenalin; the vessels of the uterus are affected, those of the bladder, however, influenced but slightly. The effect of adrenalin upon metabolism is not fully tested.

Bronchial asthma can often be relieved by the injection of 10 minims of 1 : 1000 adrenalin solution. Not more than this should be given. The drug is also of service in menorrhagia, metrorrhagia, coryza, trachoma, conjunctivitis, congestions of the mucosa generally. Intravenously, adrenalin is employed in cases of cardiac and vasomotor anemia. It is frequently efficacious in the relaxation which sometimes follows chloroform narcosis. In surgical shock, adrenalin should be the first thought. Here we have depression of the vasomotor center and general vascular relaxation. Injections of adrenalin act upon the muscular fibers in the vessel-walls, increasing blood pressure and saving life. Adrenalin, when used in such cases, should be added to normal saline solution, and exhibited intravenously or by hypodermoclysis. Strong solutions, such as, for example, 1 : 2000 or 1 : 3000 should never be used hypodermically, the part becoming ischemic, and thus permitting the propagation of bacteria and the formation of slough.

We have not found the use of adrenalin to cause undesirable renal congestion, and as already stated, the drug, intelligently used, is an extremely valuable therapeutic agent.

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QUERY 5637.—"Infantile Paralysis or Basilar Meningitis?" In a late communication, reporting a fatal case, a correspondent says: "It is (and was) impossible to procure portions of the brain and spinal cord for microscopical examination. The symptoms of paralysis were prominent in the motor,

but not in the sensory areas; no paralysis of the bladder; reflexes not increased. No girdle pains, no radiating pains of the extremities complained of (except the slight pains in the knees for a few hours already referred to). As his ancestors were a healthy and long-lived people, and he was a strong, healthy boy (none more so in this section), I cannot think there was any tuberculous trouble. He never had any severe sickness, was *always* healthy, no abnormality existed in the nose, throat or auditory canal. If such had been the case I should have informed you of the fact. No trauma, no difficulty in deglution, nor Cheyne-Stokes breathing, neither spasm of the muscles of the face. Complained of slight stiffness of muscles of back of neck for a very short time, and much less than often complained of from some very trivial cause. Pupils normal, no inequality in size. I cannot think there is any possibility of luetic taint. No typhoid here at present, nor has there been for a long time. Stools normal. Yes, he had been in the harvest field some, but during early part of hay harvest, but made no complaint of the heat. I did not see patient from 5 p. m., Sabbath, till 9:15, Monday morning. He was dead some ten minutes before I reached his home, and I cannot say what may have occurred during that sixteen hours (except paralysis of the left leg), as you cannot always depend upon reports of excited friends. I had no doubts of trouble in the upper part of cord, and perhaps at the base of the brain, but just what it was, was another thing, although the death certificate states "cause of death was meningitis," and has my name attached. I had never met anything just like this in many years' active practice."

The correctness of the certificate cannot reasonably be questioned, but it is extremely desirable in such typical cases, to make a *positive* diagnosis even though one may have to wait for a postmortem to do so.

You are doubtless aware of the fact that a peculiar form of "infantile paralysis" is epidemic throughout the country. Some of the patients stricken have been over fourteen years of age. The symptoms have varied, but a fatal end has been rather the rule.

Should you have any further experience with this peculiar malady we trust you will make careful notes and report the case for the benefit of the profession. The New York State Board of Health has issued an order that all cases of infantile paralysis be reported, terming the present form of the disease "contagious."

Prompt and thorough elimination, the free use of nuclein, echinacea and calcium sulphide, flying-blisters along the spine and inunctions of Unguentum Credé (or intravenous injections of colloidal silver) prove the most efficacious therapeutic procedures.

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QUERY 5638.—"Incontinence of Urine." M. M., Indiana, is unsuccessfully treating a case of incontinence in a woman of about twenty-six, dating from the time she was ten years old. Micturition occurs about every thirty minutes in the day-time and almost as often at night. The patient is very nervous and weeps frequently. There is not much pain and little or no smarting. We are asked to suggest the indicated remedies.

Incontinence of urine may be due to any one of several causes. When enuresis diurna and nocturna exist together we may regard the condition as a neurosis, with increased irritability of the vesical musculature and hyperesthesia at the neck of the bladder. In such cases atropine valerianate, brucine and hydrastine will prove efficacious. Nuclein with the phosphates of lime, soda and potassia here prove effective reconstructants. The urine, in such cases, should be examined for hyperacidity and alkalinity. Indigestion, worms, spinal disease, stricture, a distention of the rectum, ocular defects, and so on, must be thought of and excluded. Eye-strain often is at the bottom of such trouble, the fitting of a proper pair of glasses putting a prompt end to the disorder.

A few moments' thought will enable you to see how very liable even the very best physician is to fail in these cases, whereas another may prescribe at random, almost, and stop the leak instantly. Study your patient carefully, making quite sure that

reflex sources of irritation do not exist, then write and give us a clear, concise report, accompanying the same with a specimen of her urine. We shall then be in a better position to suggest the right remedy for the pathologic condition present.

Has this woman borne children or had miscarriages? Is the uterus normal in size and position? Any constriction of the sphincter ani; hemorrhoids or pruritus? Any carbuncle or inflammation of the meatus?

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QUERY 5639. "Rubeola, Rubella, or Erythema Multiforma." J. C. P., Illinois, was, on July 6, called to see a boy six years old who had fever, sore throat, red skin (hardly red enough for scarlet-fever), small eruptions, and a white-coated tongue; the eruption lasted for four to five days. All the children in the family (four in number) "broke out" in the same way, and there has been quite an epidemic of the disease in the locality. One girl, age twelve, was exposed to measles by another child having it in the same house. She was sick about a day but did not break out any. That was in May. On July 28 the doctor was called to see her and found a temperature of 103° F., pulse 120, respiration 18, white-coated tongue, red spots in throat and roof of mouth, white pustules on tonsils, skin eruptions smaller than of measles and the surface reddish or, rather, more of a pinkish hue, which lasted six days. The doctor could hardly give it a name; but as he always treats conditions (not names), gave her the "clean-out and clean-up," and used calcium sulphide, aconitine, phytolaccin and echinacea. This is an outline of symptoms and treatment of some twenty cases. Results excellent. What is it?

We note with interest the doctor's experience with an eruptive disease resembling measles. Read carefully, in this connection, Query No. 5600, page 826, July CLINICAL MEDICINE. We are evidently dealing with a condition similar to that encountered by C. S. M., Illinois, i. e., the "fourth disease." It is difficult sometimes to distinguish between a *very mild* scarlet-fever or measles, and a case of German measles, or roetheln. In the cases described by C. S. M., there is hardly any question that the "fourth disease" existed. This case may, however, have been an erythema multiforma, with autointoxication (which nearly always exists as a prior condition), but we are very much inclined to make a diagnosis of "fourth disease."

If, after reading Query No. 5600, the doctor desires to ask any further questions or present any additional clinical data, we shall be pleased to hear from him. The treatment is very simple and most effective —as he has already discovered.

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QUERY 5640.—"Magnesium Sulphate and Copper in Antidysenteric Combinations." J. A. B., Oklahoma, was advised by a confrère to use, in dysentery, a saturated solution of magnesium sulphate in teaspoonful doses, with 4 to 6 drops of aromatic sulphuric acid added. Soon after receiving this advice he noticed the following formulas recommended for acute dysentery: (1) Copper sulphate, gr. 1-6; magnesium sulphate, dr. 1; dilute sulphuric acid, gtt. 8; water, enough. Directions: Take such a dose every four hours. (2) Magnesium sulphate, ozs. 1 1-2; deodorized tincture of opium, dr. 1; aromatic sulphuric acid, dr. 1; peppermint water, enough to make 4 ounces. Label: One tablespoonful every two hours until stools are free and watery, then every three to seven hours.

The question asked is, "could copper arsenite be used in either one or all of these prescriptions, or if not, could it be used in a saturated solution of magnesium sulphate, and can it be used in lactated elixir of pepsin?"

We certainly should *not use copper arsenite at the same time with copper sulphate*, nor should we be inclined to give copper arsenite combined with magnesium sulphate and opium. Copper arsenite is most valuable when given in small and very-frequently repeated doses, say, 1-3000 to 1-250 of a grain every ten to thirty minutes. As prescription No. 1 contains copper sulphate and a dose is to be taken every four hours, a dose of prescription No. 2 is to be taken every two hours and it contains aromatic

sulphuric acid, copper arsenite would be out of place.

Copper is indicated in all forms of acute diarrhea, but it is especially valuable in dysentery and cholera infantum. We suggest that you read the article on copper arsenite in "Alkaloidal Therapeutics."

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QUERY 5641.—"Dosage of Echinacea." M. L. F., Wisconsin, desires to know how long echinacea should be administered and what amount given before stopping?

Echinacea is given to secure a definite result, i. e., to combat systemic infections or to correct depraved conditions of the body-fluids, hence it is rarely exhibited over any great length of time but is pushed in full dosage to effect, say, 1-2 to 2 grains four to six times a day. In septic conditions of long standing the drug may be combined or alternated with nuclein and continued for two or three weeks, dosage being gradually reduced.

The value of echinacea in snake bites, insect stings, etc., has been finally proven. A good preparation of the drug should be given internally and also applied locally. A very interesting article on echinacea appears in Ellingwood's "Materia Medica and Therapeutics," while Lloyd Brothers of Cincinnati offer to supply other pertinent literature.

Echinacea is especially indicated in septic and malignant disorders, in gangrene, sloughing and phagedenic ulcerations, carbuncles, boils, and various forms of septicemia; also in foul discharges with weakness and emaciation. A purplish color of the skin with low inflammation and dirty-brownish tongue call for its exhibition. In typhoid fever, septicemia and other adynamic fevers, in pulmonary gangrene and cerebrospinal meningitis echinacea is of signal service. Locally it may be used to annul the pain and correct the fetor of cancerous sores. As will readily be gathered from this, the amount of drug given will depend entirely upon the severity of the conditions to be overcome. In every case calling for echinacea active elimination should be secured.

QUERY 5642—"The Salicylates and Oil of Wintergreen." M., Michigan, wishes to know if sodium salicylate is made from true oil of wintergreen. Also what "natural oil of wintergreen" is.

Sodium salicylate (true) is made from the natural oil of wintergreen (also from the oil of birch), and is not to be compared, either in price or in quality with the synthetic product. The natural oil is distilled from the leaves of gaultheria procumbens (wintergreen), a small evergreen plant, endogenous in the northern hemisphere, and bearing scarlet, fleshy, berry-like fruit. If you have ever penetrated the woods of Michigan, you must be familiar with the wintergreen berry. Doubtless as a boy at least you have often chewed the leaves.

These contain the natural oil of wintergreen, a volatile, colorless or slightly yellow or reddish substance with a characteristic strongly aromatic odor, and a sweetish, warm, aromatic taste. It consists almost entirely of methyl salicylate.

True salicylic acid and its salts are obtained from gaultheria procumbens (also, as already said, from oil of birch, oleum betulæ), but the market is filled with synthetic salicylates obtained by combining the elements of pure carbolic acid with dry carbonic acid. Sodium salicylate is prepared by the action of salicylic acid upon sodium carbonate. The true sodium salicylate is prepared from salicylic acid obtained from gaultheria procumbens, while the synthetic salt is made from the artificial salicylic acid.

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QUERY 5643.—"Adrenalin in Asthma." L. C. M., Alabama, notes that we recommend glonoin followed by hyoscine and strychnine in asthma. "Without criticism of the above," he writes: "Let me request you to try adrenalin solution, 1:1000. Ten drops diluted and injected hypodermically gives relief within ten minutes, and there are no bad after-effects. The patient may suffer with fulness in the chest and a smothering sensation during the ten minutes, but there is no danger and relief is sure. I have used it when the patient would feel the paroxysm coming on and in

fifteen or twenty minutes she would be attending to her household duties. I always recommend the 'clean-out' before leaving the patient. What do you think of the idea?"

We have tried adrenalin frequently. Naturally in some instances it proves effective; in others it does not. In asthma of cardiac origin it may be indicated. Asthma after all is but a symptom and in order to permanently relieve the condition we must remove the cause. Do not forget the extreme potency of suprarenalin. Some very *distressing results have followed* the exhibition of the quantity you mention. We are glad to note that you insist upon cleaning out the alimentary canal and keeping it clean. This is an essential in all asthmatic cases.

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QUERY 5644.—"Tobacco-Habit." F. H. L., Utah, asks us to "kindly outline the best treatment for the tobacco-habit?"

Treatment of the tobacco-habit depends to a very great extent upon the form of addiction. The man who smokes requires very little if any medical treatment. The amount of tobacco consumed should be reduced until finally the patient finds himself able to refrain from smoking. It is desirable in every case to bring the general health up to the maximum standard, i. e., improve assimilation, increase elimination, equalize and maintain nerve equilibrium. Small doses of atropine or hyoscyamine may be given. These drugs cause a distaste for tobacco. It is essential to meet the conditions present in each individual.

The man who chews can substitute for tobacco some of the preparations of the market. Gum, licorice, rhubarb or gentian root, etc., may be utilized and even given in full doses with strychnine hypophosphite or valerianate to supply the needed tone to the nervous system. Atropine should be pushed until the tobacco becomes distasteful, which it very soon does, then the dose gradually reduced as the desire for tobacco ceases. As a matter of fact any man with ordinary control of himself can cure the tobacco-habit. We have had patients who were accustomed to smoke and chew incessantly cut the amount of tobacco used in half, reducing each day's supply, at the same time smoking smaller cigars of lighter tobacco, and chewing a small pinch of natural leaf. These men within two weeks have gotten down to one small cigar (a few whiffs smoked at a time) a day, and have chewed a few grains of tobacco at the same time. At the end of the next week they are practically through, and if the influence of atropine is maintained or if the patients are supplied with a few granules and told to take one whenever the desire for tobacco is strong, the third week should see them entirely free from the addiction.

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QUERY 5645.—"Oxaluria." J. H. B., Kansas, sends urine to be tested and desires to know what remedies we should prescribe. The patient is white, male, twenty-four years old and clerks in a clothing store. Teeth are badly affected with pyorrhea. He drinks but little water.

The report of our pathologist shows that the patient suffers from oxaluria. Large quantities of calcium oxalate exist, and there is insufficient output of urea and solids. The main thing is to eliminate and restore functional activity. Give calomel, with podophyllin and possibly bilein, at 7, 8 and 9 p. m., every second or third night for the next two weeks, with a saline-laxative draught the next morning upon rising; boldine, gr. 2-67, and iridin, gr. 1-3, before food. Papayotin in effective dosage after eating, following an hour later with pancreatin and sodium sulphocarbolate.

Keep the mouth thoroughly cleansed with an alkaline antiseptic. A mentholated solution of the sulphocarbolates with a little glycerin added will prove as useful as the various "named" antiseptics—and is infinitely less costly.

Keep the skin active with a daily epsom-salt bath. As soon as you have secured elimination, put the patient upon a generous mixed diet of meat, eggs, milk, fruit and cereals. Ten minims of dilute hydrochloric acid, well diluted, with meals, will prove beneficial at this stage.

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The "Case" or the Patient?

UNDER the heading of "A Beautiful Case," *The Inter Ocean* recently printed an editorial which for aptness could not well be surpassed. The story is that a young man suffering with a fever presented "such a beautiful case" that physicians came and stood at his bedside by the hour, studying the symptoms as presented by the victim with classic regularity, in such classical regularity, in fact, as they rarely are seen except in the textbook. Years afterward this same individual was enabled to escape a threatened quarantine by the fact that the medical inspector remembered that "beautiful case." That young man probably did not realize how lucky he was that his beautiful case had not been rounded out by a necropsy!

Let us remember that scientific interest is one thing, but that humane interest is more. Studying disease in the abstract is well; studying a sick human being is better. Scientific observation and accurate recording of a special case are of great value, but curing the patient is still more valuable.

It is a misfortune, which collectively costs our profession millions of dollars each year, that a large part of the public has, unfortunately, imbibed the conviction that we doctors are more interested in the scientific aspect of a case than in the patient's personality. But to the patient personal interest is everything, and what he wants is that that should be everything to his medical adviser.

This fact, after all, is the most powerful motive in the gravitation of the great public away from the regular profession and toward every class of pretenders, especially those who, springing from their own midst, are more closely united to them than to the scientifically educated physician. The latter is apt to be placed upon a pedestal, too lofty, too pure, too fine, for everyday use and for familiar association. "Doc" is always nearer to the hearts of the public than The Doctor. That dignity which demands the uncovered head, in recognition of the lofty professional standing of a man, costs that dignified individual a good many dollars; and, incidentally, it costs the public a good many lives that could have been saved had they been left to his skilled care. The law of compensation rules everywhere.

In this case we may well ask ourselves, Is it worth while? After all, the dignity which requires to be guarded and to be hedged in is not worth very much. There is indeed a true dignity, that which comes from a profound understanding of one's profession, which is worth far more than any

assumption of manner or jealous claim of superiority.

There may be a morbid satisfaction in having the man of the house remove his hat, and to see the housewife whip off her apron, hurriedly dust the best chair in the parlor for you, and then to sit up straight while she is listening to the oracular utterances from your lips; but I would rather have the children climb on my knee, listen to their prattle and have them clamor for a story. Yes, and if a patient dies, I like the family to feel that the doctor is nearly as heart-broken over the loss as he would be if it were one of his own kin. For the life of me, I cannot see why a man can not feel this way and yet have all of the scien tific interest in the case, as such, which also is good for him.

There is but one way to earn anything—that is, to find out the laws which govern production, and to shape our actions in accordance with these laws. Good luck never comes to the capable man as a surprise. He is prepared for it, because it was the very thing he has a right to expect. Sooner or later, and after many hard raps, every man who lives long enough will find this out. When he does so he has the key to success, though it may be too late to use it.—David Starr Jordan.

FASHION IN SURGERY

The surgeon is very apt to assume for his medical brother a constantly changing predilection for whatever remedial agents may happen to be in vogue at the time. The general impression attributes to those who apply mechanical remedies, for the relief of mechanical disorders, more of stability, of certainty, in their application. But is this in accord with the truth?

The Lancet for October 1, 1910, contains an editorial, entitled "Fashion in Surgery," wh'ch affords some interesting reading. The writer mentions Sir James Simpson's introduction of acupuncture as a means of arresting hemorrhage. It was thought at the time that this method would utterly replace all other means of stopping bleeding. Where is acupunture now? Absolutely forgotten. Most medical men would now be unable to describe it.

Less than fifteen years ago Kaler published his method for the forcible reduction of angular curvature of the spine. Its wonders were proclaimed far and wide. The ease and safety of the reduction were dilated upon, the completeness of the restoration to the normal state was demonstrated by numerous illustrations of patients before and after the marvelous operation. Where is Kaler's method now? In the entire country, or even in the whole world, has this operation been performed on one single child within five years? Dangers undreamed of soon made their appearance, a few sudden deaths occurred, and the promise of improvement in walking never materialized.

Even more recently gastroenterostomy has been put forward as a panacea for all gastric ills; for pyloric stenosis, for gastric and duodenal ulcers, hematemesis, dilation of the stomach, malignant as well as simple gastric affections, in fact for so many conditions that one wondered why nature had erred in not providing man with a "normal gastroenterostomosis." Time has shown that this operation does not possess all the virtues attributed to it, and at present most surgeons agree that it is seldom of permanent value unless there is definite obstruction at the pylorus. Generally, when no such obstruction exists, the new orifice soon closes. True, many persons were none the worse for the operation, but it is more than doubtful whether many were benefited.

The marvelous results of Lister's method commended it to the surgical profession. When similar results were obtained by methods alike in principle, but different in practice, a tendency arose to lay stress on certain points and to regard Lister out of date.

Aseptic methods naturally developed from antiseptic surgery, and they are not opposed to it. Some months ago some American surgeons visiting London found Sir Watson Cheyne still using strong carbolic-acid solutions on wounds. Some were inclined to consider his method not the best modern surgical practice, nevertheless his results will compare favorably with the most rigorous aseptic practice. In this connection, compare Dr. Gray's article on another page of this issue.

Lister's advocacy of catgut met with much opposition, but time has changed this, many surgeons now maintaining that catgut is the only thing for a buried suture.

It is perhaps fortunate that the surgeons have not adopted Senn's recommendation of narwhal ligament for this purpose, as the supply would probably soon fall short of the demand, and this interesting beast would become extinct.

At present rubber gloves are employed by the majority of surgeons, yet in some hospitals there is a tendency to discard them as needless if not actually harmful. Many additions could be made to this list. There was a time when all the surgeons in the world were doing tenotomies. It has been long since any surgical journal contained references to Marion Sims's operations for vesicovaginal fistula or splitting the uterine cervix in any but a historical sense.

As a matter of fact, it would not be far from the truth to state that the history of surgery is an account of a succession of surgical fads that came into widespread vogue and then were thrown aside. This, however, would not do justice to the enormous progress that has been made by the surgical fraternity. It would be taking account of the froth on the surface of the torrent, instead of the deep-running water beneath.

The business man who makes a fault hurts himself, the physician who makes a fault hurts someone else.
—Hobart A. Hare.

WHERE THE CENSORSHIP FAILS

No more striking illustration of the absurdity of trying to censorize the therapeutic thought of the century, by the Council on Pharmacy and Chemistry or by any other body, is to be found than in the passing experience with Ehrlich's much advertised specific for syphilis, popularly and euphoniously yclept (*à la* Humphrey) "606."

According to numerous "official" rulings all advertising of this remedy and all "mentions" of it in a commendatory way should be rigorously barred from *The Journal of the American Medical Association* and the affiliated state journals until the product has been solemnly quarantined, inspected and marked "passed" by the Council. Only recently one of our pedestaled practicians has stated that he would not even *think* of trying a remedy until its clinical investigation had been officially sanctioned. Yet the national *Journal* is filled with articles praising this patented, privately owned and proprietary specialty, and no great and good guardian of our therapeutic morals has risen with a single whisper of protest.

On the other hand, if this remedy is what it promises to be, one of the greatest medicinal discoveries ever made, one which will cure cases heretofore thought incurable, saving thousands of lives, isn't it the duty of every physician to learn all about it as quickly as possible, and the duty of every medical journal to give all the available facts concerning it? And what has the Council got to do with it—or with us—in the meantime?

It seems to the writer that the editors of some of our truly good journals are astride a dilemma, which just at present must be bucking like a Texas bronch'.

Oh Heart, sing on! the drought is long,
The birds are panting—stilled their song;
The typhoon marshalls in the plain,
The air is hot, no sign of rain,
But still, Oh Heart, sing on!
—Richard Wightman

THE NEW PHARMACOPEIA: WHAT SHALL IT CONTAIN?

In *The Bulletin of the American Pharmaceutical Association* Dr. S. Solis Cohen contributes a paper on "The Scope of the Pharmacopeia," which is so full of common sense that we wish we had space for its complete reproduction.

In this paper Dr. Cohen points out that the Pharmacopeia is not a work on therapeutics, also that the admission of a drug to its pages should not be taken as evidence that the same is accepted and recognized by all or even by the greater portion of the profession. Neither should a drug be refused admission because certain experimenters failed to find evidence satisfactory to them as to its value. In this connection he instances cactus, which has been pronounced inert by some writers, as the result of experiments on animals, while, on the other hand, good authorities, studying the drug from the clinical standpoint, pronounce it possessed of great value.

"I am neither afraid nor ashamed," says Dr. Cohen, "to appear in such excellent company as that of Dr. Roland G. Curtin of Philadelphia, in support of the high clinical value of cactus, when a good preparation is properly used, in suitable cases. Here is the point: a *good* preparation, *properly* used, in *suitable* cases. One who has not used a good preparation of a drug under discussion; or has not used it properly; or has prescribed it in a case for which it is not suitable; or one who has never used it clinically at all, is not in a position to dogmatize as to its value. He may properly criticize, suggest, demand evidence. But he cannot properly condemn in the face of competent evidence in its favor; and it is the opinion, and not the drug, that in such a case is to be considered worthless—or at least needs to have its 'value established.'"

Dr. Cohen wisely objects to the exclusion from the Pharmacopeia of the crude drugs even when their active principles are admitted; and in this we concur. One of his strongest points is one that would not occur to the experimenter, but would instantly appeal to the clinician. He argues that even when such a drug as digitalis has been established as the most reliable heart tonic, this does not mean that others of the list should be excluded, for when continued medication for a long period is necessary, it is desirable to vary the medication, not giving any one agent too long, since the system becomes habituated to it. We are all familiar with the fact that after giving a single medicine a certain period, the substitution of a closely allied one gives, instantly, better results.

The writer is glad to see that Dr. Cohen does not believe in reducing the number of articles to be admitted into the Pharmacopeia to accord to individual preferences and scholastic or sectional prejudices. Southern physicians use passiflora and veratrum viride largely (northern physicians might well take a lesson from their experiences); therefore he believes that these substances should be recognized by the Pharmacopeia. "The Pharmacopeia," he argues, "being a book of legal as well as professional standards, both rich and poor are entitled to its protection, and both elegant and cheap remedies must be included; both crude drug and active principle; and as many preparations, in reason, as physicians may require."

It is to be hoped that the wise counsels of men of large and varied clinical experience, like Dr. Cohen, may have a strong influence with our new Committee of Revision which is just now entering upon its great task of creating the ninth edition of the United States Pharmacopeia.

Who bides his time, and fevers not
In the hot race that none achieves,
Shall wear cool-wreathen laurels, wrought
With crimson berries in the leaves;
And he shall reign a goodly king,
And sway his hand o'er every clime,
With peace writ on his signet ring,
Who bides his time.

—James Whitcomb Riley

THE REVIVAL IN THERAPEUTICS

Under the above head *The Gulf States Journal of Medicine and Surgery* contributes a brief but significant editorial.

As the causes of the therapeutic nihilism of the recent past are given the great number of useless articles in the Pharmacopeia, and, further, the uncertainty of action of even the best of them, the conflicting opinions concerning their therapeutic effects, and the hopelessness of trying to learn anything practical by exploring this tangled wilderness.

The present revival in the study of the materia medica is largely attributed to the correction of these conditions. Some teachers selected from each botanical group its most useful members. Others omitted the botanic unessentials. Certain bright irrepressible geniuses pushed forward the alkaloids and other active principles of many vegetable drugs, and in most modern textbooks all therapeutic agents are classified so as to be studied in groups characterized by one dominant effect.

The result is that the study of materia medica and therapeutics has been promoted to the laboratory, and has become a pleasure instead of a hopeless task.

This is one more evidence of the fact that at last the attention of the best elements of our profession is again being directed to the

study of the vast field of drug-therapeutics, instead of being monopolized by the addenda which, while useful and valuable, nevertheless are simply addenda and not comparable in importance to the therapeutics based upon drugs.

It is faith in something and enthusiasm for something that makes a life worth looking at.—Oliver Wendell Holmes.

DEVELOPMENT OF THE DRUG REVIVAL

I have always believed in Hobart A. Hare. Even when his first books appeared and examination demonstrated that they were in the main compilations made by a very good compiler, but one who had had, at that time, little experience in real medical work, I believed that these books contained the promise of a great future; and each succeeding edition of his principal work has confirmed this first impression. With every passing year Professor Hare is becoming more of a power in therapeutics, a recent editorial in *The Therapeutic Gazette* serving to illustrate his own broadening thought, as witness the following comment:

"In the way of refreshing contrast we quote from an article contributed to *The Boston Medical and Surgical Journal* of July 28, 1910, by Tyrode, who is at once a clinician and a pharmacologist. He says: 'In spite of the efforts of cranks on psychotherapy, dietetics and physical therapeutics to abolish the use of drugs or belittle their advantage in the treatment of disease, these therapeutic agents have persisted and are still flourishing after the late passing period of therapeutic nihilism. This is very encouraging, because unquestionably great good is being done every day by the proper use of drugs.' And again he says: 'It is unnecessary to defend the rights and accomplishments of drugs in modern therapeutics because the results obtained speak glowingly for themselves.'

"We believe the duty of the physician is:

"1. To cure his patient or to relieve him by the employment of every means which have proved useful in the past.

"2. To be careful not to do harm by undue therapeutic activity.

"3. To place all his measures upon a scientific basis as soon as science can give him the facts. Until then he must use the results of experience and hope that a satisfactory explanation for his clinical results will be forthcoming."

A man who favorably comments on, or himself voices, such sane therapeutic sentiments is very far from being a therapeutic nihilist. Assuredly, I believe in Dr. Hare, who expresses, in cogent way, the new faith in therapeutics, a faith built upon a careful, scientific study of our medicinal agents, and one which must rest, in its finality, upon the employment of remedies which are invariable in strength, uniform in action. Every guide-post points toward the active principles!

You have heard of St. Chrysostom's celebrated saying in reference to the Shekinah, the Ark of Testimony, visible Revelation of God Among the Hebrews. "The true Shekinah is Man!" Yes, it is even so; this is no vain praise; it is veritably so. The essence of our being, the mystery in us that calls itself "I,"—ah, what words have we for such things?—is a breath of Heaven; the Highest Being reveals himself in man. This body, these faculties, this life of ours, is it not all as a vesture for that Unnamed?—Thomas Carlyle.

"THE AMERICAN FOOD JOURNAL"

The number of publications issued from the American press is beyond computation. From the enterprise of the circulation promoter, we are deluged with innumerable propositions for passing our good coin over in exchange for one or more of these meritorious productions. But since not even the purse of a Carnegie could pay for all these journals, it is necessary for us to make a choice.

In this practical day, age and land the first question to be asked concerning any of these is, "Can I utilize it in my business?" Judging from this standpoint, *The American Food Journal* ought to have a circulation with scarcely a limit, for there is not a family in the country which would not find every number of this journal of inestimable value to them.

What careful provider for her household could fail to find a guide for her marketing, in its account of food-products condemned by the Government for adulteration, mis-

branding, short weight, and so on? It makes a difference if the two-pound can of baked beans contains five ounces less than for what we are paying; if our "maple" syrup is composed of glucose with a little decoction of maple added; if our pepper is largely composed of powdered olive pits, our chocolate of bullock's blood, brickdust and charcoal, and the ice-cream cones on which our children regale themselves in warm weather consist of a concoction of abominations a description of which scarcely is fit for publication.

I really think that if each reader of these lines were to send to H. B. Meyer & Co., 160-162 Washington Street, Chicago, for a sample copy of this monthly and leave the same in his office, for his patients' perusal, in the place of those medical journals he ought to keep carefully secluded from the laity, he would be doing these people a service they would not fail to appreciate.

As for ourselves, in common with other editors, we know a very great deal more than the general run of mankind, even in our own profession; nevertheless, we have never perused a copy of the magazine in question that we have not found in it edification, food for thought, and material of such practical value that we can not resist the impulse to pass it along. The work being done under the Pure Food and Drugs Act is all epitomized here. The practical workings of this most important act and its far-reaching influence are here shown in a way which ought to be known to every citizen who is interested in the question of whether he is buying and putting into his stomach really pure foods or a generous proportion of dirt.

One interesting point we gather from the last issue of *The Pure Food Journal* is that one well-known pharmaceutical house was fined for misbranding a drug, the extract of damiana; the objection being to the statement that it was an aphrodisiac, "when in fact it has no such qualities." We live, and sometimes learn.

The condemnation of several popular brands of whisky, because they were not whisky but combinations of grain distillates, would of course not interest any of our readers personally, but might appeal to their patients. That MacLaren's "Roquefort" cheese is not Roquefort, and does not have the properties of Roquefort, is edifying; so also are the facts that celery-kola has been condemned as containing caffeine and cocaine; that coke-extract contains cocaine, as also does kola-ade; that King's quick-rising buckwheat flour is in part composed of wheat flour; that Barrett & Barrett's "charm" brand 40-grain cider vinegar consists of a mixture of diluted acetic acid and cider vinegar artificially colored; that Lombardo's La Tosca hair tonic contains 98.5 percent wood alcohol; that Ryno's remedy for hay-fever and catarrh contains 99.95 percent cocaine hydrochloride; that the Michigan Produce Company's Neufchatel cream cheese is made from skimmed milk and contains much starch; that the Dayton Spice Mills' Dutch Java blended fancy roasted coffee contains little or no Dutch coffee; that the drug known as "mother's friend" does not, as claimed, alleviate the suffering incident to child-bearing; that the mineral water denominated Susses Wasser is not of German origin; that Blanke's Dutch Moka coffee is a Santos product; that McIlvaine Bros.' powdered colocynth is a powder of the seeds as well as the pulp of the colocynth apple; that Horn's "telephone" headache tablets, guaranteed absolutely harmless, contain acetanilid; these are some of the interesting features of *The American Food Journal* of October 15.

Every great captain in life's procession carries the flag a certain distance to the front and there he plants it. The task of carrying it still farther belongs to another.—The Fra.

THE DEATH OF PROFESSOR HALLBERG

We were greatly shocked to learn of the death of Prof. Carl S. N. Hallberg, of the University of Illinois School of Pharmacy, on October 23, 1910. When we last saw him, at the meeting of the American Medical Association at St. Louis, in June last, he seemed to be in usual health. He was acutely ill for a few weeks only.

Professor Hallberg was one of the most striking and aggressive figures in American pharmacy. He was a splendid teacher, a forceful writer, and a man of much originality of thought. Wherever there was a fight

in the things that concerned his profession there he was to be found—and "on the firing line." He was a member of the Revision Committee of two (or three) editions of the United States Pharmacopeia, was prominent in the work of the American Pharmaceutical Association, being the editor of its *Bulletin* from the time it was founded, one of the original promoters and first secretary of the Council on Pharmacy and Chemistry of The American Medical Association, and for several years secretary of the Section of Pharmacology of the same medical body.

Hallberg was a fighter, and he was a foeman worthy of any man's steel. We know—for more than once have we crossed swords with him, and in contests where neither side asked nor expected quarter. Between us, in many things, there could, necessarily, be no agreement; but we are glad to add our testimony to that of others who have known him intimately, to our belief in his unquestionable and unswerving integrity. His very allegiance to truth as he saw it made him strike friend and foe alike with the same unsparing and too often bitter blow—but the blow was delivered as honestly as it was courageously.

With the death of Hallberg there passes into the Great Beyond one of the most interesting and unique pharmaceutic figures of our time, a man who has helped to make medical history.

CUSHNY, AND THE ACTIVE PRINCIPLES

If you wish to realize what progress the study of the alkaloids and other active principles has made in recent years, just get a copy of the just-issued edition of Cushny's "Pharmacology," and compare it with other similar works written ten years ago. You need not go further for this than the index, where you will note that crude drugs are mentioned scarcely at all, but the active principles are discussed almost exclusively. However, one should not stop at the index; let him give this excellent work the full study which it deserves.

The progress of drug-therapeutics, since the revival of interest in this branch about ten years ago, has become so intense that one who has not kept pace with it will be amazed at the showing made in this the most recently produced textbook of this nature. This is all the more notable since Cushny is one of the most conservative of writers and thinkers and not in the slightest degree influenced by the waves of popular opinion. This, the fifth edition, is published by Lea and Febiger of Philadelphia and New York, and is a volume of 744 pages illustrated with 61 engravings.

ATROPINE, ACONITINE AND GLONOIN IN HEMORRHAGE

There seems to be a concensus of opinion among the experimental therapeutists that the proper treatment for hemorrhage is by the use of agents that reduce vascular tension. This is in accordance with the clinical observation that hemorrhage ceases when the flow of blood has reduced the heart action to a certain point. In accordance with this theory is the observation of Dr. Rendtorff, of the United States Indian Service, as related in the September number of *The Medical Council*.

In this same paper, among other things, Dr. Rendtorff speaks of the successful application of aconitine as a remedy for active hemorrhage.

Aconitine is primarily a relaxant. By stimulating inhibition, it checks the force and the frequency of the heart action, while, by relaxing vascular tension generally, it lessens the impulse which projects the blood from the open vessels. In this respect it occupies the place which the older physicians filled by venesection.

But it is obvious that this treatment is not suitable for all forms of hemorrhage, since it acts by reducing the blood flow to a point just beyond which lies danger, danger increasing with every further drop of blood lost. Neither the method nor the remedy is therefore ideal for the treatment of hemorrhage.

Observations collected from many sources seem to show that atropine comes much nearer the ideal, in its suitability for many forms of hemorrhage, and in the fact that, operating upon a different principle, it appeals more strongly to our fears; for atropine

is hemostatic because it increases capillary attraction, and thus tends to bulk the blood into the vast capillary areas, from which it is comparatively less liable to reach the bleeding spot. Atropine actively stimulates the vasodilators, causing an active, not a passive, dilation of the capillaries; the result being that, even when a capillary area is opened by a wound, the blood is retained in these vessels, just as it would be in a capillary tube of any other nature.

It would seem that these two agents might, in such instances, be synergistic, although they are antagonistic in other respects. For if atropine actively stimulates the vasodilators, while aconitine is relaxing the vasoconstrictors, we have, from the union, a double effect, and the consequent impounding of the blood in the vast capillary area is greatly enhanced. It must be remembered that the capillary system has about seven hundred times the capacity of the arterial system for blood, hence a comparatively slight increase in capillary attraction or capacity would enormously relieve the tension in the arterial trunks. While either of these remedies might accomplish the purpose, it is better, as a rule, to employ the combination than to use either one alone, because in this way we obtain our object with a smaller dose of each. This is always desirable, because it is an axiom in scientific therapeutics that the results desired should be procured with the least-possible dose of the remedy. Overstimulation is thus avoided, with the consequent reaction.

This explains why it is that aconitine and atropine, given simultaneously, are more effective in the treatment of tonsillitis than either of these agents when given alone; for as atropine dilates the blood-vessels actively and aconitine does so passively, we have a twofold increase in their capacity outside of the inflamed area, and so a draining-away from the tissues; and, by reducing the hyperemia, the force of the inflammatory attack is broken.

As in the treatment of the first stage of the epileptic convulsion with glonoin and atropine, if the first stage of a pathologic process is stopped, the second stage will not follow, inasmuch as for the latter the first stage is required for its development. The first step in vice needs must precede the second. No man will get drunk if he refrains from the first glass.

To these two potent agents, aconitine and atropine, we may, as a rule, add a third, glonoin. The object of this is to secure quicker action, as by its instantaneously dilating the blood-vessels the other medicaments pass more rapidly through the circulation to the point which they are to affect. Besides this, glonoin instantly relieves the cerebral anemia and consequent faintness, which forms the most imminent danger in hemorrhagic maladies.

Here we come again to that curious principle which seems to permeate the application of medicinal agents, namely, the formation of therapeutic trinities; and those who have a taste for the occult might readily spin a fascinating although tenuous web of conjecture over this odd phenomenon.

Burggraeve's studies led him to the dosimetric trinity, aconitine, digitalin and strychnine, which probably is of more frequent and general applicability than any other combination of the active principles. Abbott's observations, in like manner, led to the defervescent compound of aconitine, digitalin and veratrine. That tremendously powerful antispasmodic union of glonoin, hyoscyamine and strychnine forms a third triad. All have approved themselves as of especial fitness in meeting the indications presented by clinical studies.

DOSAGE OF SPARTEINE

In *The Southern Medical Journal* Prof. MacNider publishes an interesting and important study of sparteine. His experiments were carried out under strictly scientific conditions and the care with which they were made gives unusual value to his results obtained.

Administering intravenously small doses of sparteine, 1-2 to 1 cubic centimeter of a 10-percent solution (gr. 1-12 to 1-6) the blood pressure rose slightly, then returned to normal. No change took place either in the heart-rate or the rate and extent of respiratory movement. There was no evidence of a diuretic action. This experiment was repeated on four animals.

With the fifth experimental animal the same technic was employed, but larger doses were given, namely, 4 cubic centimeters of a 1-percent solution (gr. 5-8), while the sparteine in this experiment was obtained from another source of supply. In this instance the administration of the drug was followed by a fairly rapid rise in blood pressure—from 120 millimeters of mercury to 152—this rise being persistent. With it the output of urine increased markedly, and this also persisted. It is unfortunate, though, that the present study leaves doubt as to whether the results in the last experiment were due to a different agent having been employed under the name of sparteine or to the much larger dose employed.

So far as the study goes it confirms Pettey and Maguire as to the value of sparteine when given in much larger than the customary doses. We trust that Prof. MacNider may complete his study to clear up the question left unsettled.

To live in the presence of great truths, to be dealing with eternal laws, to be led by permanent ideals—that is what keeps a man patient when the world ignores him, and calm and unspoiled when the world praises him.

Francis G. Peabody.

ADULTERATED DRUGS

A magazine article of recent date says:

"Five tons of olive pits were received in the New York customs office not long ago. They were consigned to a dealer in crude drugs, who declared they were to be used in the manufacture of a patent chicken food. The customs officials did not believe the man's declaration, and reported the instance to government chemists at Washington. Within a few weeks the chemists began to sample and test the drugs made by this firm. They bought belladonna and found it half olive pits. They tried poke-root, and the olive pits comprised 30 percent; gentian was all olive pits; ipecac was 40 percent olive pits.

"Isaac Russell, in *Pearson's Magazine* for June, gives the above instance as an example of how drugs are being adulterated in the United States.

"And all the time," says Russell, "the physician is wondering why drugs of vegetable origin vary so in potency in different cases."

"'Ground olive pits are not the only stomach irritant the sick are likely to receive when they call for something soothing,' says the writer, and he culls from many government investigations a long series in which the adulterants range all the way from plain river sand to broken twigs and stems of shrubs.

"In henbane, 28 percent of the supposed drug was sand. In anise, a stomach stimulant, sand formed 25 percent. Cumin, of which only the fruit is valuable, contained four parts of stems and chaff. Belladonna was found to be four parts chaff to one of the leaves which are famous as a soother for irritation and pain; benzoin, one-half chopped bark and sand; balsam of Peru suffers adulteration in the same way; nux vomica often comes to the drug dealer as a worthless seed, rolled in clay, and mixed with the pulp of the nux vomica fruit.

"Many other adulterations of drugs are noted, 'skin foods,' laudanum, quinine and headache powders among them."

Well, why do you use the trash, when you can get the pure, clean alkaloids, without the encumbering dirt? You do not have to put up with ground olive pits, or inflict on your unfortunate patients a mess of sand, stems, chaff, clay, and other refuse for the sake of a little bit of alkaloid possibly contained therein.

"I've made it a practice to put all my worries down in the bottom of my heart, then set on the lid and smile."—Mrs. Wiggs of the Cabbage Patch.

GLAUCOMA CAUSED BY AUTOINTOXICATION

An important paper on the Pathology of Glaucoma appears in a late issue of *The Lancet-Clinic* from the pen of Dr. C. H. Castle. From this we quote the following passage, as it emphasizes what we are constantly trying to inculcate.

"The action of morbid ferments or bacterial toxins derived from the intestinal tract has now for some time past been definitely acknowledged as an important factor in the causation of systemic disease. The passage of microorganisms into the tissues from the

intestinal tract is constant even under normal conditions. The tissues of the body are able to cope with the germs and render them inocuous provided they are not too virulent or present in too great numbers."

Describing the morbid anatomy of the disease, Dr. Castle ends his dissertation as follows: "All of these things should justify us in regarding as the initial and continuing cause of glaucoma an autogenous intestinal intoxication."

Again we have an illustration of the verity of the great principle upon which we have insisted with such strenuousness through all these years—that the care of the alimentary canal is of vital importance; that it is essential to the cure of disease—practically all disease, whether acute or chronic—to "clean out, clean up and keep clean."

ON MEDICAL TEXTBOOKS AND INDEXING PERIODICALS

"Of the making of many books there is no end." This saying of Ecclesiastes (XII, 12) is, perhaps, nowhere as true as it is in medicine, and the number of medical textbooks with which the market is annually flooded is terrifying to the reviewer and puzzling to the practising physician.

The busy practician, if he finds only little leisure for study, cannot decide which one of the many writers on a given subjec has probably presented this in the best, clearest and most concise manner. He is likely to forget that the brilliant operator and the keen diagnostician are not necessarily lucid writers, nor will he consider, perhaps, that a learned and fascinating lecturer does not always possess the gift of being equally interesting when putting down his thoughts in black and white. For this reason the general practician is quite at the mercy of the persuasive book agent and liable to pay dearly for a well-known name which decorates the title page of some, possibly, dull and mediocre textbook.

The idea prevails among physicians that the books on their shelves should be renewed every few years. That is very true, and the reason for this has been excellently expressed by Dr. P. C. Freer in his Commencement Address to the Philippine Medical School, as reported in *The Bulletin of the Manila Medical Society*, April, 1910. This is what Dr. Freer said:

"A scientific textbook is already beginning to approach middle age in its second year, and, with the exception of a few great works, is dead in five if it be not methodically revised. We are too much the slaves of the textbook habit. Each teacher with some power of presenting his subject feels called upon to write for his classes so as to make his task of instruction the more easy, and each publisher is compelled, in order to see a profitable return for his investment, to push the sale of the work in all directions. The consequence is a war of textbook writers and textbook printers, from which those with higher aspirations often turn in disgust."

Then, however, the speaker went on to point out the great, but too often overlooked, value of the periodical and ephemeral literature of the period, as follows:

"A good textbook is a good thing if modern; it is useful for reference, it is concise in laying before the student the main ideas of the work he is undertaking. But neither teacher nor pupil must ever forget the broad range of original literature which is embodied in the journals, periodicals and monographs of his science and which is collected for use in the larger scientific libraries of the world. These contain the original sources from which, directly or indirectly, the textbooks are more or less imperfectly compiled; these contain the inspiration leading to greater and higher work. All advance in science is brought about by a great number of individuals, each perfecting his small portion of the whole and embodying it in his particular publication for the use of all."

These words embody a very important truth and should be remembered. The current medical literature, the journals and pamphlets, contain the live, growing, *developing* knowledge of the time. Textbooks present a review of the accumulated knowledge up to a given point of time and are all too often its grave. Thus it is of paramount importance for the physician who desires to keep abreast of the times to study and index the periodical medical literature, while, as for

textbooks, a judicious selection is imperative.

We have before now (CLINICAL MEDICINE for May, p. 487) called attention to the permanent value of many textbooks and compilations. A physician who possesses a wisely selected collection of textbooks, who reads and indexes his medical journals and the many good reprints and pamphlets coming to him, whether as advertisements or otherwise, need not replace his entire library every few years, nor need he have fear of becoming a back number. With an occasional new book added as a certain amount of knowledge is rounded out and presented in book form, a file of the best medical periodicals, properly preserved and made available, is better by far than a multitude of new books, and it is cheaper. And if you want to know which among the new books is best, the members of our editorial cabinet are ready at all times to tell you as far as lies within their power. Write and ask us.

"Everything comes to him who hustles while he waits."

"HOW NOT TO DO IT"

Our sprightly contemporary, *Medical Notes and Queries*, has an uncomfortable way of poking an inquisitive finger between the ribs (so to speak) of our most cherished ideals. Those of our cloth who have been nurtured in the belief that there is no prophet save Mohammed and that they are walking reverently and accurately in the sacred footsteps of the Great and Holy *may* be made to writhe at the impact of the editorial digit—and maybe not. In any case, the following is interesting:

> Statistics seem to show that both in matriculants and graduates the medical schools of the United States have a much smaller number to show in the last few years than in the years preceding; that year by year fewer men enter the medical schools and that fewer graduate. This is considered a great gain and a thing to exult over—done, of course, by raising the standards, by Carnegie Foundations and by the special investigations of the American Medical Association. But how about the growth of "isms" in the last ten years and the decided trend of legislation by which they are ennobled and placed on the footing of state recognition, or, as in the case of Christian science, of state toleration? Are there fewer ignorant men and women practising on the easily deluded public than before? Is it not very much the other way? Never since the states existed have physical and mental quackery and the use of drugs by those ignorantly prescribing flourished so riotously; and the process we imagine will still go on, the properly (?) educated physicians grow less in number, and the medical freaks hold their heads higher, while new freaks of previously undiscovered species spring to light day by day. Slapopraxy and spankopraxy and wireless therapy are already gazing eagerly over the wall that for a moment stays their triumphant career and shuts them away from the dear people, the willing gulls, their legitimate prey; but wait a year or two, and, lo! they will have a representative on the examining boards and be as good as the best. Thus do we raise the standard for them! Does it pay?

Wouldn't it be a good plan for our benevolent leaders and would-be educators to pay some attention to the needs, financial as well as intellectual, of the doctors that *are* as well as to the needs of the doctors that are *going to be!*

Even though we may not turn quite so eagerly aside from our daily dollar-garnering tasks to the knee-deep pastures of hypothesis which lie all around us, as our teachers would have us do, there are certainly few of us who would not be glad to know why the public distrusts us and how we can get and hold the patients who now enrich the medical freaks. Would it not be worth while to direct some of our surplus energy (if we have any such surplus) into a movement which would have for its double purpose the increase of our own efficiency at the bedside, and the rehabilitation of our profession in popular favor?

We have advertised our weakness long enough. We need to advertise our strength —and have some to advertise!

CROTALIN USED IN EPILEPSY

In *The New York Medical Journal* Dr. Fangler reports eleven cases of epilepsy treated with crotalin in solution, his initial dose being 1-200 of a grain, gradually increased to a maximum of 1-12 of a grain.

Dr. Fangler found that in each case the attacks had been modified as to severity while the intervals between them were lengthened. In one patient subject to convulsions there had been no recurrence for six months after treatment with crotalin had suppressed the symptoms. The local reaction varied with individual susceptibility.

As a rule, the oftener the injections were given, the less marked was the local reaction.

No depressing effects on any of the vital functions were observed. In all cases a sense of well-being followed.

As we have shown before, it is a mistake to employ this remedy in the form of solution, the active principles being so fragile that decomposition quickly results, resulting in a certain amount of deterioration of strength and the possible generation of matters more toxic or septic than is desirable

As yet we have heard of no one who employed hypodermic tablets in anything like such doses as Fangler describes. It is better to begin with 1-400 of a grain, as the startling effects of too large a dose are liable to discourage the patient and interfere with the thorough testing of the remedy.

He who knows not, and knows not that he knows not:
He is a fool—shun him.
He who knows not and knows that he knows not:
He is ignorant—teach him.
He who knows, and knows not that he knows:
He is asleep—awake him.
He who knows, and knows that he knows:
He is wise—follow him.

THE DISPENSING OF POISON BY MEDICAL PRACTICIANS

"In *The Lancet* of January 29 attention was drawn to an inquiry held at Fulham coroner's court, and more especially to the fact that the jury asked the coroner to lay the circumstances of the case before the Home Secretary, 'in order that legislation providing a distinctive form of bottle might be brought about.' It was pointed out that the regulations as to the methods of storing and dispensing poisons, with which pharmacists were by law compelled to comply, were not applicable to medical practicians, but it was suggested that this fact in no way lessened the obligation of medical men who dispense to carry out the same methods of safety to the public as if the law was obligatory upon them."

We quote the above passage from an editorial in *The Lancet* for March 5, because it brings up a matter which dispensing physicians might well consider. Poisons and active drugs are, only too frequently, simply stored on the drug shelves in the physicians' offices, the latter not always locked when the doctor is away, so that anybody entering the room during his absence may, if so minded, help himself. If, perchance, the office communicates with the doctor's residence, and if his children have access to it, there is all the more reason why potent drugs should be locked away, because the pretty little pills in their pretty little bottles exercise an all but invincible attraction to the little mischievous hands—and from hand to mouth there is but a very small distance. Thus the present writer well remembers how, as a child, he discovered his father's medicine-box filled with pretty litttle sweet granules in tiny vials, and how he and his brother used to levy contribution upon it, emptying a vial at the time. Fortunately the vials contained old homeopathic granules and no harm was done, although many hundred granules were devoured in the course of a few days.

Physicians who dispense their own medicines, especially if these are the active principles, should keep them safely under lock and key, nor permit anyone to have access to them. This is important from the standpoint of prevention, because even one instance of illegal use of a poison obtained from a dispensing physician's cabinet would strengthen immensely the argument of those opposed to dispensing, and they would not be slow to avail themselves of it.

THE THERAPEUTIC VALUE OF VERATRINE

Folia Therapeutica rarely fails to contain something well worth reading, even on the part of a well-read and practised therapeutist. Sometimes, however, it does publish things one would wish had not been printed, and this is the case with a paper in the July number of the present year, a good example of misleading half-knowledge.

In an article appearing on page 62 the writer speaks approvingly of veratrum viride, quoting Landis, whose very favorable report on the drug appeared last spring in *The Lancet-Clinic*. Then speaking of the use of this drug in puerperal eclampsia, the author says:

"It is sufficiently well attested to make it quite sure that those who do not use it are

neglecting a very definite aid to the treatment of ecalmpsia." Further on he expresses himself as follows:

"Perhaps the reason for the neglect of veratrum is to be found in the uncertainty which exists concerning its active principles. It is important to understand that veratrum viride has nothing to do with veratrine. Veratrine exerts a specific effect on the contraction of muscle, altering the contraction in such a way as to imitate the muscular spasm seen in Thomsen's disease. Clinical experience has not indicated any useful employment for veratrine in the sphere of internal medicine."

The writer of this article does not seem aware of the fact that aconitine and veratrine are at present used as the commonest of everyday medicaments by more than fifty thousand physicians in America alone, and, further, that veratrine has been shown to possess exactly the qualities for which veratrum viride is given, veratrine presenting the additional advantage of affording those effects in a definite, uniform and speedy manner, without the irritation which any tincture exerts when used hypodermically.

Cushny, in the edition of his "Pharmacology" just issued, says (page 361): "The effects of veratrine on the central nervous system and on the sensory terminations resemble those of aconitine very closely. On the other hand, the muscles present a curious reaction to veratrine which is entirely absent in aconitine poisoning. Veratrine increases the force and prolongs the time of muscular contraction."

When given in small doses, as is invariably the case with those who are now making such extensive use of this alkaloid, veratrine energizes the cardiac contractions while relaxing the tension of the arterioles.

Again, on page 394 Cushny says: "The ventricular systole is at first stronger and prolonged. Somewhat later one part of the ventricle is seen to remain contracted during the alternate diastoles of the rest, and waves of contraction spread over the heart, resembling the peristaltic movement of the intestines."

Clinically, veratrine has been found to relax vascular tension with certainty, and to increase markedly elimination by the liver, the skin and the kidneys. This gives the indication for its employment in febrile maladies, where the elimination of toxins and the relaxation of spasmodic vessels form the most imperative duties of the physician.

I am in a position to correct the observation of the writer in *Folia Therapeutica* by stating that many millions of doses of veratrine are prescribed by the American medical profession every year, and that this alkaloid has proved one of the most satisfactory of the active principles which have as yet come into use.

In comparison with glonoin and the other nitrites, the action of veratrine in relaxing vascular tension is so much more prolonged as to permit it to be administered for months or even years in cases where such a continuous relaxation of abnormal tension s desirable. In this respect veratrine differs from the nitrites, in that all the latter group, while speedy in getting to work, have so brief a period of activity that they are unsuited for such continuous relaxation of the blood-vessels.

Between these two drugs named stands digitonin, a more recent introduction, but which promises to fill an important place. It is not quite as quick in getting to work, but its effects last from one-half to one hour.

Cushny asserts that veratrine used externally is a better and safer remedy than aconitine, and in one sense this is also the case as to its internal administration; for an overdose of veratrine quickly makes itself evident by irritation of the stomach, inducing emesia, whereas aconitine, being a local anesthetic, does not give this element of safety.

However, this is a matter of indifference to those who are familiar with the use of these two remedies, since the habit of giving minute and frequently repeated doses until the desired effects have been secured renders such a thing as an overdose an impossibility. Both remedies present the further advantage of providing for their own elimination, and in this respect offer a marked contrast to such remedies as digitalis and morphine which, by tending to lock them-

selves up in the system, are liable to disastrous ulterior effects.

NOT SATISFIED!

Some men never know when they are well off, or feel contented, no matter what they may have gotten. Among these is our Health Officer Dr. W. A. Evans. One would think that an annual death-rate of 13.2 per thousand, in the great city of Chicago with its cosmopolitan population, ought to satisfy any reasonable sanitary officer; but instead of being satisfied, Dr. Evans is still energetically urging the people to ward off the danger from flies, from impure foods, infected milk and other unhygienic conditions. The time will come, if similar progress is made in sanitation, when we shall have to be sanitarians instead of doctors. Query: Is it not worth twice as much for a man to keep well as to be cured?

TONSIL OPERATIONS AND SYSTEMIC SEPSIS

The Journal of Ophthalmology and Oto-Laryngology, not long ago, contained an interesting account of a report made to the Chicago Laryngological and Otological Society by Dr. L. W. Dean. Three patients in whom tonsillotomy or tonsillectomy had been performed soon afterward showed symptoms of severe infection, two recovering after a prolonged illness.

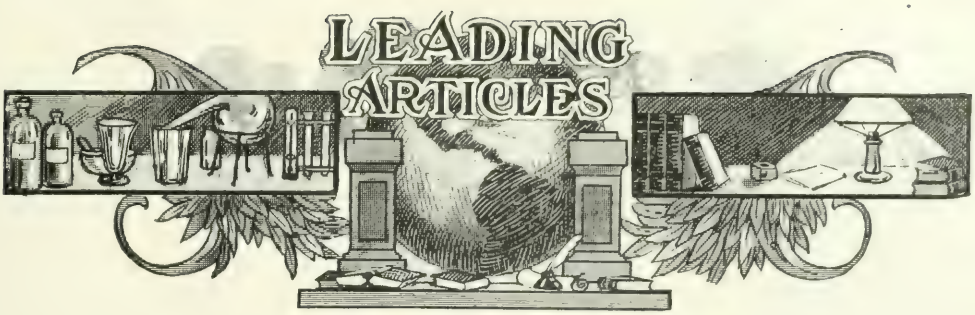
The discussion brought out the fact that the infection may be either primary, i. e., that the germs are introduced during or soon after operation, or it may be secondary, by continuation from the nares or nasopharynx. In any event, active after-treatment is important in order to prevent the infection of the raw surfaces or stumps, and we are impressed with the remarks of Dr. O. T. Freer; who regards the knife as safer than the snare, because the latter bruises the tissues, which then forms an excellent culture-medium for bacteria.

Even more justified appears to us the opinion of Dr. E. Pynchon. After calling attention to the intimate relations existing between the tonsils and the lymphatic system, which makes it very easy for any infection to extend from the diseased gland into the general lymph current, particularly the cervical glands, he gives it as his opinion that an effort should be made to close the openings into the tonsil hermetically to prevent this spread of infection. For this purpose Dr. Pynchon has, for the last twenty years, been doing tonsillectomies by means of cautery dissection under local anesthesia, and he has never seen general sepsis following this operation. He directs the patient to gargle his throat regularly every fifteen minutes for the greater part of the first twenty-four hours. After that, every half hour for several days.

LOCALIZING NERVOUS MALADIES

A glance at the cerebrospinal axis and the ganglional system suffices to convince one of the impossibility of separating the affections that appear in each of these localities. The connections are too close. Taking into account the rapidity of the communications and the close anatomic connections, one must recognize the puerility of affected localizations. Every disturbance occurring at any point of the nervous system will resound throughout all. There may be one or many echoes, but the shock will be general.

It is no easy matter to locate the point where the alarm was sounded, for a vicious circle is quickly formed. Excited by morbid reflexes, the brain will in its turn send out its orders for irritation in organs hitherto unaffected. A centripetal irritation emanating from any point in the great sympathetic reaches the brain, recoils in movement—eclampsia, convulsions, etc.; but if the irritation stops at the brain, either because it is too strong to radiate (the irritated nerve losing its electromotor force), or that the motor conductors are disabled, nervous phenomena arise; and we shall have either the depressive form of cerebrospinal irritation, or the maladies properly designated as voluntary—maladies of contracture, or of arrest.



The Wassermann Test

In the Diagnosis and Prognosis of Syphilis

By E. J. ANGLE, A. M., M. D., Lincoln, Nebraska

EDITORIAL NOTE.—The discovery of the specific cause of syphilis, the spirochæta pallida, by Schaudinn, of the serum test by Wassermann, and of a possible cure by Ehrlich, are epoch-making, both as regards the study of this disease and also in their effect upon the possible future of mankind. The Wassermann test, as the matter of first importance promises certainty in diagnosis. For this preeminent reason every physician should understand it, and be prepared to put it into application.

IN the past few years history has been made in syphilology. First, in 1905, came the announcement by Schaudinn and Hoffman of the discovery of the spirochæta pallida, which ended the quest so diligently carried on by scientists for a quarter of a century. In the following year, Wassermann, Neisser and Bruck announced that the Bordet-Gengou reaction could be applied to the diagnosis of syphilis. Only two weeks after that publication, Detre announced a system which was, at least theoretically, the equal of Wassermann's. Detre used horse's corpuscles and antihorse-amboceptor, with rabbit's serum for complement. Bauer, Hecht and Stern have variously modified the Wasserman system, all of which are open to well-known objections. Since Wassermann's discovery an enormous amount of work has been done, and today its value as a diagnostic measure is beyond cavil.

The Noguchi Modification

More recently Noguchi has devised a system which has the recommendation of having a more simple technic. The Noguchi test is based upon the same principles as that of Wassermann, being, in fact, merely a modification of the latter. The difference of the two is in the hemolytic system employed. Noguchi uses human corpuscles as the indicator, and an amboceptor for human corpuscles instead of for sheep's corpuscles. The antigen and complement are the same both in the Wassermann and Noguchi methods. Five elements enter into each: amboceptor, complement, antigen, suspension of blood-corpuscles (sheep's in Wassermann's, human in Noguchi's), and the serum to be tested.

Noguchi has endeavored to make his method available for the average laboratory worker, and has had the antigen, complement and amboceptor incorporated in filter-paper slips. However, it has been found that the complement-slips deteriorate so rapidly as to be unreliable.

The Wassermann test is considered the more certain and reliable of the two. The reaction is generally more acutely defined, while the Noguchi is so sensitive that one is frequently left in doubt.

The following table of comparative statistics by Fox, based on 230 cases, shows a higher percentage of positive reactions by the Noguchi than by the Wassermann test:

DISEASE	Total of cases	WASSERMANN TEST Positive Reactions	Percentage	NOGUCHI TEST Positive Reactions	Percentage
Primary	7	7	100	7	100
Secondary	37	36	97	37	100
Tertiary	32	23	71	27	84
Hereditary	1	1		1	
Tabes dorsalis	3	3	100	3	100
For Diagnosis	53	21	39	26	49
Nonsyphilitic	23	2		4	

The Specific Character of the Reaction

What can be said as to the specificity of the reaction?

Certain among the nonspecific diseases have given a positive reaction in the hands of many careful observers. The percentage in scarlet-fever has been various, some reporting as high as 50 percent positive. Leprosy gives a fairly high number of positives, according to Noguchi, 70 percent in the tuberous variety. Butler reports a positive reaction in some noma cases; with the blood of patients suffering from framboesia the reaction is reported positive. Levaditi obtained a reaction in the spinal fluids of patients with sleeping-sickness. Some cases of tuberculosis, cancer and diabetes have been reported as reacting positively, but in a majority of these cases the technic was shown to be faulty. Aside from scarlet-fever, yaws and leprosy, this is so infrequent an occurrence that the reaction for syphilis is not impaired.

The possibility of a syphiliti taint in a person, the subject of another disease, must be entertained. Scarlet-fever may be caused by spirochætæ; and Swift advances the theory that the reaction here and in yaws, leprosy and sleeping-sickness is a group reaction excited by the lower forms of animal parasites.

The Cases Where the Reaction Fails

It is a drawback, of course, that a few syphilitic subjects fail to react positively to the test. The test is a biologic process and for some unknown reason all persons do not respond similarly to a given stimulus. Undoubtedly, when our technic improves and a greater experience has come, the cause of these negative findings will be apparent. Wilson thinks this is due to the fact, contrary to the rule, that these sera contain antisheep amboceptors as well as antisyphilitic ones. If the latter are present in only small amount, they may be swamped by the former and a negative reaction result.

In primary syphilis the reaction appears two or three weeks after the appearance of the primary lesion. The demonstration of the spirochætæ pallidæ is readily made at this time either by staining the specimen or with the dark-field illuminator.

It would now seem possible to prove definitely whether or not excision of the primary lesion aborts the diseases. If the diagnosis is made microscopically, the lesions are excised, later serum tests never become positive and no further symptoms develop, then the disease can be considered aborted. However, from our previous studies, this is not at all probable, for the spirochætæ are already far beyond the confines of the primary sore.

Statistics Showing the Value of the Test

In the following instances the Wassermann test was the one employed:

Wassermann collected the results in 1982 cases of syphilis with 1010 controls. All the controls were negative. Of the cases of syphilis which presented some manifest symptoms, 90 percent gave a positive reaction. The latent cases gave 50 percent positive. In 100 cases of locomotor ataxia, Schuetze obtained a positive in 69, either with the blood-serum or spinal fluid, or with both. In 2000 cases of syphilis, Lesser found 69 percent positive in the primary stages (at least three weeks after appearance of sore). In the secondary stage with symptoms, 91 percent positive; without symptoms, 46 percent positive. Of tertiary cases with symptoms, 96 percent positive; without symptoms, 46 percent. Lesser's figures show 100 percent of cases with general paralysis giving a positive result. In tabes, he found that 34 in a total of 61 cases were positive. Of these cases, 45 give a previous history of syphilis. Of the remaining 16 cases, 13 were positive to the Wassermann test. Thus 58 cases, or 95 percent, prove to have had syphilis.

In children with symptoms of hereditary syphilis, practically every case reads positively. The statistics of Cohen, Leber and Fleischer give account of the test in eye lesions and are of great value to the oculist

The reaction has done much to clear our knowledge of the socalled latent period of the disease. Lesser gives about 50 percent positive in this class of cases and calls attention to the parallel findings found in the autopsy rooms of Berlin. In patients in whom a previous history of syphilis had been given, he found evidences of visceral syphilis in 49 percent. In other words, latency only means that the disease is active beneath the surface, in some viscus or tissue. The laws of Colles and Profeta must be revised, for in a majority of cases, in place of the mother or child being immune, they are simply suffering from the disease in a latent form.

This test is of value to every practician and specialist in medicine, for syphilis is a general disease and may affect any part of the economy. The early diagnosis of nervous diseases, resulting from syphilis, should give more favorable results in the future.

Whitehouse reports five cases of diffuse scleroderma, three of which gave a strong positive Wassermann reaction, one faintly positive and one a negative. The two latter cases had been under specific treatment for one year and for six months respectively. Later cases may prove that syphilis is an etiologic factor in this disease.

Examination of Prostitutes

The report of Dreyer and Meirowsky, who examined one hundred prostitutes of Cologne, shows some startling facts and furnishes material for reflection for physicians and others regulating prostitution in our cities. Of the 100 cases, specific disease could be established by the history in 56, only 1 showing any manifest lesions. Of the remaining 43, who showed no lesions or gave no history, 32 gave a positive reaction. Of the 56 known infected, 45 reacted positively. In other words, 75 percent had syphilis, and 85 percent were, or had been, infected. Excepting 3 cases, the non-syphilitics had registered as prostitutes less than a year back. This goes to prove that *nearly every prostitute becomes syphilitic.*

Of what value is the test in the control of treatment? Does it possess prognostic value?

It is still too early to speak with authority, but the statistics already collected point to its great value in this respect. In the early studies, it was noted that the untreated cases gave a higher percentage of positives than those that had been treated. Bruck and Stern noted 81 percent positive in 173 untreated cases, and only 28 percent positive in 178 treated cases. The figures of Blaschke and Boas closely follow those of Bruck and Stern.

Boas points out that the disappearance of the reaction does not necessarily run parallel with the disappearance of the symptoms. The reaction may disappear suddenly, but usually is gradually influenced as treatment is continued, until it finally disappears.

Laws Helpful in Treatment

Citron has formulated the following laws on the relation between treatment and strength of reaction:

1. "The longer the syphilitic virus has worked in the body, the oftener it has caused relapses, the more constant and stronger is the antibody-content of the serum."

2. "The earlier mercurial treatment is begun, the longer it is continued, the more often it is repeated, and the more efficient the manner of application, the lower is the antibody-content."

The earlier treatment is commenced, the more probably a negative result will be obtained after treatment. Neisser's cases illustrate this. A negative result was obtained in 75 percent of the cases where treatment was commenced as soon as possible after the primary sore appeared; whereas in another series, in which treatment was delayed for six months, only 33 percent were negative.

The iodides usually exercise little influence on the reaction, but Swift records a few cases under treatment with the iodides alone, in which it disappeared. Lesser tested atoxyl, but he never witnessed any change in the reaction. In experimenting with the several mercurial salts and the different methods of administration, the results largely corroborate our clinical experience.

The most reliable preparations are found to be calomel, *mercury* in the form of the salicylate, succinimide or bichloride. The

reaction is influenced most rapidly by injections and inunctions. Hoehne records 83 cases receiving seven injections, of 1 1-2 grains each dose, of mercury salicylate, which gave 66 percent negative and 16 percent slightly positive. In Swift's records, more of the latent cases gave a strong positive reaction after receiving the usual dispensary protoiodide treatment than from any other mercurial.

These findings would seem to emphasize strongly the importance of giving in every specific case at least three or four courses of inunctions or injections during the first year of treatment, and a lesser number for one or two years after that, with a course of treatment by the mouth during the intervals. No specific case should be discharged until a negative finding is shown. Or if in a given case, after prolonged treatment, repeated tests fail to give a negative reaction, then prudence demands continuation of the treatment for a safe period to make a cure reasonably sure. The future health and happiness of our patients and their posterity demand this.

An Apparent Cure for Pellagra

By E. H. BOWLING, M. D., Durham, North Carolina

EDITORIAL NOTE.—Ever since it was first announced, several years ago, that pellagra prevailed in this country, it seems to have been taken for granted that the disease was incurable, at least in most cases. But is it incurable? There is a respectable minority of physicians who refuse to concede that it is, and some of these men, by applying the "clean-out and clean-up" principle, are getting results that warrant a much more hopeful outlook. Dr. Bowling is one of these men.

FIVE years ago I treated my first case of pellagra, but at that time I and several other physicians failed to diagnose it as such, for we simply did not know what the trouble was and frankly so confessed to ourselves. Of course, to the family we gave some name to the disease, although I forget what I wrote in the death certificate. Last year there were a few isolated cases in our city, the patients, so far as I know, all recovering, nor did the disease make much of an impression either on the profession or the laity. In the spring of the present year we almost had an epidemic, and I had to sign three death certificates for pellagra in one week. The situation at that time was truly alarming and the people were almost panic-stricken. The doctors could give no encouragement, and I am free to confess that I myself felt absolutely helpless when called upon to treat a pellagra patient.

The First Recognized Case

About this time I was called to see a man with rheumatism, and while at his house his wife showed me her hands and arms and asked if I thought she had had pellagra. The hands looked characteristic, so I made inquiry as to the presence of sore mouth, diarrhea, dermatitis, mental symptoms, and so on. The clinical history made the diagnosis positive and I so told her, and upon asking her who cured her, she replied: "You doctors were losing all your cases, so I discharged mine and began treating myself, and you see the results." The only treatment, she told me, had been cream of tartar and sulphur, equal parts, a teaspoonful in water three times a day.

Immediately my thoughts reverted to intestinal antisepsis and I felt chagrined for so utterly overlooking the "clean-out, clean-up and keep-clean" dogma that Waugh and Abbott had tried so persistently to hammer into this thick cranium of mine.

My next patient, you can rest assured, got the cleaning out and the old reliable stand-by in time of trouble, the zinc sulphocarbolate in heroic doses; but while there was some improvement, I had to confess that for the first time in my experience I felt that my old friend had deserted me.

While casting about for the next-best thing to do, I was called to see a woman whose arms had the characteristic sunburn-eruption, or rather rash, of which she thought nothing though, but wanted me to "cure that obstinate sore mouth" that had troubled her for three weeks and would not get well after all she had tried. I diagnosed the case as pellagra, which it evidently was.

I ordered a tablespoonful of magnesium sulphate, gave her a prescription for 4 ounces of chlorine water, a teaspoonful to be taken in water every two hours, and went my way, expecting to be called again in a few days, only to see another pellagra patient go down and down to the inevitable grave. I waited ten days, but that call did not come; so I went to investigate. The woman met me at the door and, laughing, said: "Doctor, you tried to scare me to death the other day. That was no pellagra, at all, it was only a sore mouth, and that medicine cured me entirely." And well she was, with no return thus far.

I thought that possibly I might be mistaken in my diagnosis, so I immediately visited another patient who undoubtedly did have the affection, and put her on the same treatment. She also was quickly relieved, and so far as I can judge, she is entirely well.

Still Another Case—Also Apparently Cured

I had another patient, an old man 65 years old, this being his fourth attack. His hands, the back of his neck, and the area under his eyes were awful to look upon; his mouth was in a fearful condition; his mind was badly affected; and he was so weak he could hardly walk. Judging by the other cases I had seen die, the man had not more than a month to live, at the outside. I carried him to the Watts Hospital and, at the suggestion of Dr. Joseph Graham, who treated the case with me, we gave him the regulation cleaning out with one ounce of castor oil, administered the chlorine water every two hours, and gave a hypodermoclysis of one quart of normal salt solution twice a day. During his treatment of a little more than two weeks we had to clean him out several times with castor oil. However, in three weeks the old man went home, seemingly well, while the next week after that he took a trip of twenty-two miles out into the country, in a wagon, over the rough roads and, aside from being tired, felt none the worse for the shaking-up. I saw him today, and he was feeling well, and apparently is cured.

My next case was that of an old lady who was hardly able to stand the trip of eighteen miles on the train to get to the hospital and was utterly exhausted when she arrived. This was as hopeless looking a case as I ever saw, but after three weeks of the foregoing treatment she returned home, apparently well, and she is now attending to her household duties.

Are They Cured of the Disease?

I have treated six pellagra patients since then in the same manner and with the same happy results. Are they cured? They seem to be. Will the trouble reappear next year? I can not answer—but supposing it does. I hope to see those so attacked much earlier than this year; then, will not the same treatment have the same results? At any rate, so far as it is possible to see and judging from other cases where I had seen the victims die, these people whom I benefited would have died this year. If they do die next year, is it not giving them one more year of life? Is not this worth something—a great deal?

All these patients I instruct to keep their bowels in good order, never allowing them to become constipated. In addition, I put them on the following treatment:

Potassium nitrate .....dr. 1
Ferrous sulphate .....dr. 1
Nitrohydrochloric acid, q. s. ad oz. 1

Directions: Take 5 drops in plenty of water (through a glass tube) after each meal.

I have them all taking that mixture at the present time.

I gave no arsenic. I tried that and found it wanting. The patients I buried went to their graves full of arsenic. The hypodermoclysis is the idea of Dr. Graham, and it is a good one. I use it in every pellagra case where I can, but when the patient absolutely refuses to let me use it longer, as some of them do, then I resort to enteroclysis, that is, use the normal salt solution by the rectum, only allowing the solution to

enter very slowly, almost drop by drop. This, however, has not been as satisfactory, in my hands, as the hypodermoclysis.

Things to Remember

Dr. Graham doubtless will, at an early date, give to the journals an exhaustive report of his experience with the hypodermoclysis method. I have only touched the subject superficially, but I want to impress on the readers these ideas:

1. Pellagra is an autoinfection starting from the small intestine. Clean out, clean up, antisepticize.

2. Give chlorine water. This any country doctor can make from potassium chlorate and hydrochloric acid. I used to make mine when I was eighteen miles from the nearest drugstore, and the formula can be found in the Dispensatory and various formularies under the heading of "chlorine water," or "euchlorine." This remedy, after all, is the best, and I believe the only harmless antiseptic for the blood current at command. Use it in your next case of diphtheria, and very likely you will not need any antitoxin.

3. Put on your thinking caps and get a hustle on yourselves. We have this problem to face. We have pellagra here and it is here to stay, and it is up to us, the medical fraternity, to find a remedy.

I do not believe the treatment I have outlined is a sovereign remedy, but it will do good; it has apparently cured, temporarily at least, my patients until I have about cured all. I have two cases in the hospital now, both improving, but the "family" has thousands of cases.

Now, try this treatment, then add to it, as you surely can, and eventually we shall discover a method that will cure, and cure permanently. Then, when this comes to pass, if I can feel that I have contributed my little mite, if it was nothing more than to get a move on the old fossils that "can sing and won't," then I shall feel that I am amply repaid for the small effort that this hurried scribbling has cost me, even if it was done after a rushing day's work; and shall also feel that I am not owing you very much of an apology for taking up as much space in *our* household necessity and consuming so much of your valuable time.

—

[In a later letter Dr. Bowling writes: "I have a case now in the hospital, an old negro woman, who has the worst attack I ever saw. I am treating her with saline laxative (effervescent magnesium sulphate) and intestinal antiseptics—the compound sulphocarbolates. I am giving a tablespoonful of the saline laxative twice a day, and the way I am cleaning her out is a caution. She has involuntary actions and the stools are so offensive that carbolic acid will not kill the stench. At first I gave one intestinal-antiseptic tablet every three hours; now I am giving one every two hours. I intend to have a picture made of this patient and I shall send it to you. It is the only case of pellagra I now have where there are the typical lesions."

We shall want to hear of the outcome in this case, the picture of which has *not* come to hand as yet. It is perhaps presumptuous to prophesy that the doctor will cure it; but considering the results which he has already obtained, at least we have the right to *hope* that he will do so. Dr. Bowling has struck the right principle we are convinced—the one upon which we have insisted so much—that attention to the alimentary tract is of fundamental importance in pellagra, as in most other diseases. The fact that this *is* the right principle is further borne out by the experience of Dr. Torbett, of Marlin, Texas, reported elsewhere in this issue; he, also, has apparently cured cases of pellagra by thorough cleansing and antisepsis of the bowel. Though the choice of remedies may not be vital we believe that eventually our friends will turn to the laxative salines and the sulphocarbolates. In this connection we wish that someone would try out copper sulphocarbolate which apparently has cured at least one case. It seems indicated. Copper has a very high toxicity for low forms of life.—Ed.]

The Diagnosis and Treatment of Pellagra

Presenting a Method of Treatment Found Successful in Some Cases

By J. W. TORBETT, B. S., M. D., Marlin, Texas

EDITORIAL NOTE.—Like Dr. Bowling, whose article upon pellagra also appears in this number, Dr. Torbett has been very successful in the treatment of this strange and usually intractable disease. Both articles should be read together. Dr. Torbett, as the head of a large and finely equipped sanitarium, has had peculiarly favorable opportunities for careful clinical study.

SO many articles have been written upon the subject of pellagra within the last two years that it would be a useless repetition to enumerate all the theories, symptoms and treatments advised. I shall give some of the symptoms not usually mentioned by others and which I have observed in the cases I have treated myself during the past four years, and relate in more detail the treatment employed, which seems to have done a great deal of good in all cases where the patients could take it persistently.

I have seen in all about 19 cases, but only 12 of the sufferers were treated, because the others were so far advanced when first seen, with melancholia and other serious symptoms, that they would not take continuous treatment; in every case they returned home within a week and died soon after.

My first cases were seen and treated before I knew what the disease was; but no one who has ever seen a typical case of pellagra can ever forget it. I diagnosed my cases by name first about two and a half years ago, soon after I read Babcock's article. Before that time I called them intestinal autotoxemia due to the absorption of some *unknown toxins* from the alimentary tract, those toxins being deposited around the sympathetic and spinal nerves, causing paresis, neuritis and symmetrical dermatitis, and this I still think is the real pathogenesis of the disease. Two of the patients treated at that time by the oil method mentioned in this article are symptomatically well, though one of them, a woman, was affected seriously with religious delusions. I sent her home to die after two weeks' treatment, but learned within the last five months that she took the petroleum-oil emulsion for one year, continuously, and has been well ever since.

The Early Symptoms of Pellagra

Most of my cases when first seen have the classic dermatitis, which consists of a symmetrical, dark-red or brown inflammation of the skin, not unlike a tanned sunburn, at times infected and with pus under the skin. After several days the superficial area of skin peels off and another layer, more normal, is found to have formed beneath it. This dermatitis is usually confined to the hands and feet or to the face—especially the parts exposed to the sunlight. The lesion may "burn" but rarely itches. This eruption usually appears when the diarrhea begins, and may not appear until two or three years after the nervous symptoms have been present. The skin of the nose and face may be rough, as if sand were in the skin.

One of my patients developed very early a peculiar cyclic insanity, with the delusion that God had cleansed him so that he would never have to take another bath. This delusion would remain for a few hours and then he would be mentally normal again for a while. He did not have the shining, glazed red tongue and diarrhea until some weeks later, this symptom showing the true nature of the disease just before his death.

The first symptom in almost every case was some uneasiness, nervousness and insomnia, without any apparent cause. One of my cases, however, had no insomnia, but had the common "dreads" and other symp-

toms of neurasthenia until the diarrhea and dermatitis developed.

Some Peculiar Symptoms

One symptom which I have always noticed and which the Italian authorities mention, but which is not noted by many in the United States, is the feeling of numbness and paresthesia in the hands and feet, as a result of which they can endure the long static sparks. They are the only *nervous* patients I have ever seen who would *beg* for them, and they seem to be greatly benefited thereby. Many of these patients have peculiar drawing sensations, as if some one were pulling them "one-sided," or putting traction on one set of muscles.

I have never seen patients who had the dread for water mentioned by the Italians, with the exception of one very intelligent lady who could not wash her feet in water without having pains for hours, so severe as to prevent sleep. Her feet felt very dead and numb, yet she gained 23 pounds within three months, though she has not retained it all, I saw her today and she is doing very well. She still has no free hydrochloric acid in the stomach and vomits occasionally. She had had some stomach trouble for years, however, before this attack. There was a slight return of the diarrhea this summer, but it was soon controlled by the small doses of castor oil—one teaspoonful at bedtime, as last year.

The full pellagra syndrome is nervousness, insomnia, drawing sensations, diarrhea with very offensive stools, stomatitis, salivation with very red, glazed tongue, symmetrical atrophic dermatitis, melancholia, mental delusions and finally insanity. I do not think we should wait for all these symptoms to make a diagnosis, but cases with nervous symptoms, insomnia, diarrhea, salivation, red, glazed tongue should be called pellagra and treated as such, whether the skin lesions are present or absent.

The Differential Diagnosis

There is one other disease, of which I have seen three cases, that resembles pellagra very much. It is called "sprue," or "psilosis." This disease is characterized by a severe diarrhea, usually worse each morning, a stomatitis with *erosions and aphthous patches*, increasing emaciation and ulceration of the small intestines. The stools are more liquid than in pellagra, grayish in color and not so offensive. The drawing sensations, numbness, dermatitis and insanity are never present, so far as I can learn. It is usually confined to the Orient, but Dr. Harris, of Alabama, who was the first to report a case of pellagra in the United Ststes, having reported a case in 1902, has reported several cases of sprue. It may however be pellagra in which nature reacts strongly enough to throw off the toxin or cause of the disease in the diarrhea so completely that none is deposited within the spinal cord or nervous system, as in the typical cases of pellagra.

The oil treatment is just as good for one as the other, hence the diagnosis is not so necessary. Both are frequently fatal.

There is another disease described by Stelwagon, Crocker and others, known as "acrodynia," which several times has been epidemic. It is also called "epidemic erythema." The symptoms are gastrointestinal irritation and diarrhea, conjunctivitis, edema of the face, formication, pricking pains of the hands and feet, hyperesthesia and later anesthesia; a bullous and erythematous eruption breaks out on the hands and feet and sometimes the limbs and trunk. The patient usually recovers within three or four weeks.

Treatment of Pellagra

Every pellagra patient I have had who could take the petroleum emulsion continuously for at least three weeks has greatly improved. Two patients could not take it well and improved as well on teaspoonful doses of castor oil at bedtime. I have never tried olive oil. I used the petroleum with hypophosphite of lime and soda as made by S. & D. and P. D. & Co., but the preparation of the National Formulary is perhaps as good, though not quite so strong.

Two of my patients had used much alcohol and while they improved very rapidly under the treatment, so far as the bowel and nervous symptoms were concerned, they soon relapsed and died. The poison in pellagra and alcohol have a very similar effect upon

the brain and nervous system, hence strychnine instead of whisky should be always used as a stimulant if one is needed.

As intestinal antiseptics and astringents I tried many remedies on my first cases, but since then have relied on a combination of zinc sulphocarbolate, dr. 1; bismuth subnitrate, drs. 2; aqueous extract hydrastis and tincture ginger, of each drs. 2, and elixir lactated pepsin enough to make ozs. 2. One teaspoonful of this, in water, is to be taken every two or three hours, as needed to hold the bowels to three or four movements daily. If the discharges are checked more than that the nervous and mental symptoms always get worse.

I have never tried the effervescent magnesium sulphate, but my fine results in recent gonorrheal arthritis and all swollen inflammatory conditions of mucous membranes, when this salt is applied locally, would indicate that very small doses, comparable to the small doses of castor oil, might do as well in preventing fermentation and helping elimination in such cases.

I gave the wave current and static sparks at first with the petroleum emulsion and sulphocarbolates, but some of my recent cases have done about as well without any electricity. One patient who was very ill, gradually going down for two years, has gained 20 pounds within the past four months and from a bedridden condition has improved so much that she is now doing her own housework. Several other patients have gained from 10 to 30 pounds and some have remained very well from twevle to eighteen months, aside from the two apparently well for three years.

I think the oil treatment simply prevents fermentation, increases elimination and thereby improves nutrition. I should be glad to have others try these remedies and report results.

[This is another testimonial to the value of intestinal antisepsis in this malady. The resemblance to sprue was notable in every case the writer has examined. That reported by Dr. Waugh last summer is said to have recovered under copper sulphocarbolate. This remedy others should try. Other recoveries have been ascribed to removal to high altitudes. Transfusion is not succeeding as first claimed, and the newspapers say that five patients have died under this treatment in one of the public institutions of Illinois.—Ed.]

LET us be bold in hypothesis. One is never sufficiently so. But let us also be very cautious in affirmation. For that which constitutes a true man of science is that he joins to extreme boldness in hypothesis extreme caution in conclusion. Especially, do not allow your patience to tire. Nature is rebellious, and does not allow the first comer all at once to tear from her her secrets. One never succeeds in learning these terrible secrets in fragments, and at the cost of long and laborious efforts.

—Charles Richet

The Radical Cure of Hydrocele

A Simple Operation That Can be Performed Under Local Anesthesia

By BENJAMIN H. BREAKSTONE, B. S., M. D., Chicago, Illinois
Professor of Principles of Surgery and Clinical Surgery, Bennett Medical College; Consulting Surgeon, Mary Thompson Hospital for Women; Attending Surgeon, Jefferson Park Hospital.

EDITORIAL NOTE.—This is the third article in Dr. Breakstone's series, which deals with "ambulatory surgery", meaning the kind of surgery that the physician can do in his own office, under local anesthesia. This series is attracting much favorable attention and comment. We are happy to be able to promise its continuance.

VARIOUS methods have been proposed for the radical cure of hydrocele, and these may be divided into two classes, the operative and the nonoperative.

The nonoperative measures consist in the evacuation of the tunica vaginalis testis with a trocar and refilling the cavity with some sclerogenic, stimulating or alterative fluid, such as 5-percent carbolic acid, weak solution of zinc chloride, tincture of iodine, etc.

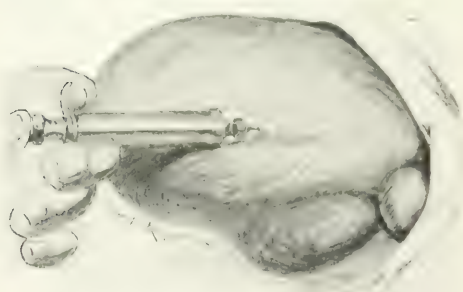


Fig. 1. Anesthetization of the Line of Incision

All of these methods are unscientific and do not insure a permanent cure. They are all dangerous, inasmuch as it is impossible to determine how far the chemical used in the fluid will work, while in case the tunica vaginalis is patulous, as in congenital hernia or in hydrocele of the cord, some of the fluid may enter the general peritoneal cavity, which of course is a very serious thing. I merely mention these methods because they are unscientific, do not give permanent results, and therefore should be condemned. However, they are the methods of the quacks, and thus they can advertise the "cure" of hydrocele without the use of the knife. I have treated many cases of orchitis which followed these injection-treatments.

Of the operative procedures, there are three well-established methods, as explained below.

Volkmann's Operation

This operation is performed as follows: Cut through the skin, superficial fascia and dartos, on the anterior aspect of the scrotum, over the hydrocele, then make a free incision through the tunica vaginalis and evacuate the sac thus opened. Then sew the cut edges of the sac to the cut ends of the skin and superficial fascia. The remaining cavity is packed well with iodoform-gauze and

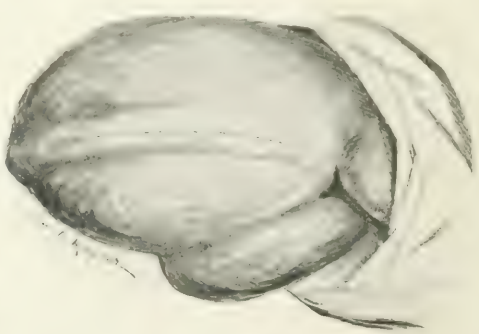


Fig. 2. The Line of Incision, Now Rendered Anesthetic

allowed to heal by granulation, which generally takes from six to twelve weeks, although after ten days the patient may follow his usual occupation.

This operation, which was the operation of choice of the late Prof. Nicholas Senn,

is usually performed under general anesthesia. There have been quite a number of recurrences following this operation, which are explained in this way: The remaining cavity having many recesses, we do not reach all of them with our packing, so that portions of the secreting diseased membrane are not destroyed in the process of granulation, with the result that these remnants will continue to exude fluid, and thus create

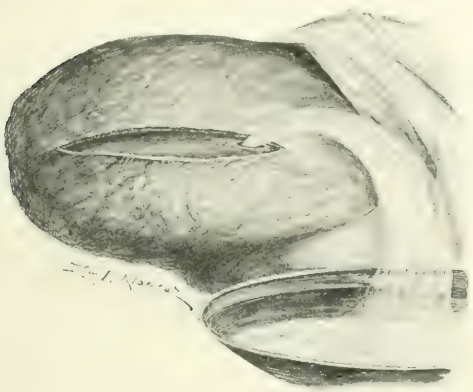


Fig. 3. Exposure of Tunica Vaginalis and Emptying of Contents

a fresh cavity. This operation, therefore, can be described as *obliteration of the sac.*

Von Bergmann's Operation

Von Bergmann's operation is really the most radical of all, as it consists of complete excision of the sac, which, of course, requires a dissection into the inguinal ring and cutting off the sac and ligating it at that point. Inasmuch as the entire sac is removed, the wound is closed up without drainage. There can be no recurrence after this operation, but it requires extensive dissection and it is hardly advisable to perform the same under local anesthesia.

Doyen's Operation

About ten years ago a French surgeon, Doyen, devised an operation according to which the sac, after opening after the manner of Volkmann is everted to cover the testicle, and the wound closed up without drainage. The theory of this operation was that if the two secreting surfaces of the tunica vaginalis were not in contact, they would not exude fluid, because after the operation the secreting surface, was in contact with the dartos, and it was, therefore, assumed that adhesions would form between the latter and the everted sac, thus effecting a cure.

However, very many recurrences followed this operation, and, I believe, it is now abandoned by most surgeons. As long as there is a secreting surface, irrespective of what tissue it is in contact with, it will continue to secrete and thus prevent rather than favor adhesions; whence it is readily seen why recurrences were common. For this reason Doyen's procedure can no longer be considered a radical cure of hydrocele.

To recapitulate, we may say that Volkmann's operation consists in the obliteration, Von Bergmann's in the excision, and Doyen's in the inversion of the diseased tunica vaginalis constituting the hydrocele sac.

The author here wishes to describe a modification of the first two operations named, and it may therefore be called,

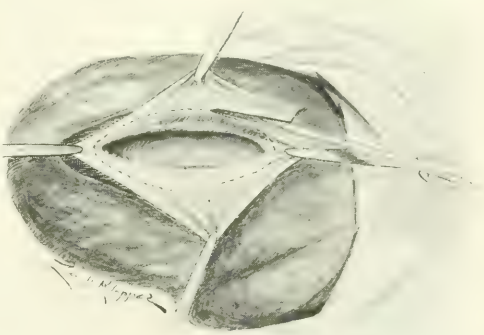


Fig. 4. Trimming off the Edges of the Tunica

perhaps, a modified Volkmann-von Bergmann operation.

The advantages of this operation are that it is a radial operation, may be done under local anesthesia, that the patient loses no time from his occupation, that it is painless, and is the most satisfactory ambulatory operation performed under local anesthesia. In the last ten years the author has met with no complications whatsoever and no recurrences.

Volkmann's operation will not result in recurrences if one is careful in packing every recess of the secreting cavity with iodoform

gauze. But it requires from six to twelve weeks for the cavity to granulate completely. In the modified Volkmann-von Bergmann operation, on the other hand, the remaining cavity being more shallow, you are less liable to overlook any recesses to be packed, and it, therefore, requires a shorter time for recovery, that is, only from two to four weeks; with the additional advantage that the patient follows his usual occupation without interruption. This operation is performed as follows:

Modified Volkmann-von Bergmann Operation

Having asepticized the field of operation, the line of the proposed incision is cocainized, as shown in Figure 1. The line of incision, of course, should be on the anterior aspect of the scrotum, about one inch to one and one-half inches from the median raphé and running parallel with it for from two to four and one-half inches, depending, of course, on the size of the hydrocele, as shown in Figure 2. The patient is in the recumbent posture, and when cocainization is complete, there is an area of edema along the line of the proposed incision. (Fig. 2.) While the cocaine is taking effect, the instruments, consisting of a scalpel, several artery-forceps, tissue-forceps, scissors, needles, and catgut, are prepared.

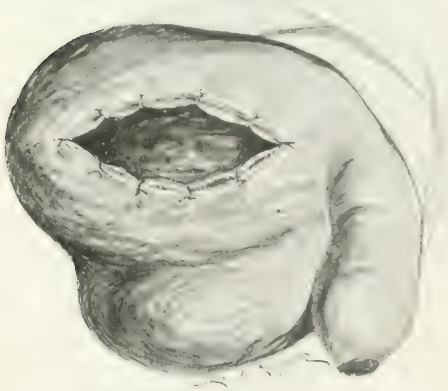


Fig. 5. The Tunica Vaginalis is Sewed to the Skin

The incision is then made, first through the skin, superficial fascia, and dartos, and then a nick is made into the shining white tunica vaginalis and the contents allowed to escape, as shown in Figure 3. The tunica vaginalis is then incised to the lower angle of the wound, the cut edges are brought out through the wound, as in Volkmann's operation. Then as much as convenient of the sac is removed, as shown in Figure 4. This latter is the von Bergmann part of the operation.

Now, after a sufficient amount of the tunica vaginalis has been removed, the remaining portion is sewed to the skin (Fig. 5), leaving a small cavity to heal by granulation. The remaining cavity is then packed with iodoform gauze (Fig. 6), which is changed about twice a week. The field is then covered with sterile dry gauze and a combination pad and a short suspensory is adjusted. The patient then is ready to go to his work or to his home.

Fig. 6. The Cavity Packed with Iodoform Gauze.

This operation can easily be done in any physician's office or at the patient's home, and it is scientific as well as radical. There are many patients with hydrocele who go to quacks; indeed, hydrocele seems to be a specialty of the advertising quack. While these patients are victims of unscientific and harmful treatment, business men and others suffering from hydrocele, it seems, would rather take that risk than lose time from their occupations.

However, my procedure, as here described, vouchsafes a radical cure of hydrocele without causing the patient to suffer pain or to lose time from his occupation.

Acute Anterior Poliomyelitis*

The Report of a Case, and the Suggestion of a Remedy

By SMITH J. TOWNSEND, M. D., Gilmore, Iowa

IN view of the increasing prevalence in Iowa of acute anterior poliomyelitis, commonly known as infantile paralysis, and the unsettled state of our knowledge concerning this affection, a few thoughts gathered from the current medical literature of this subject, together with a partial report of a case that developed in Pocahontas County, may be of more or less general interest.

Dr. Buzzard of London defines acute anterior poliomyelitis as an acute, probably specific, febrile illness affecting children and young adults, characterized anatomically by a confluent or discrete inflammation of the gray matter of the spinal cord and brainstem, with resulting destruction of the nerve-cells and consequent degeneration of their axis-cylinder processes and atrophy of muscles, usually those of the limbs, but occasionally also those of the head and trunk; a paralysis which reaches its maximum in a few hours and tends toward recovery in some parts and to the production of permanent disabilities and deformities in others.

Some writers think that infantile paralysis is infectious but not contagious. (Throckmorton, in the September number of *The Iowa Medical Journal*); others consider it both infectious and contagious (McClanahan, in *The Journal of the American Medical Association*, Oct. 1). The latter view would seem to be substantiated by the experience of Dr. C. A. Anderson of Stromberg, Nebraska. This town is in Polk County, which has a population of 12,000.

A Nebraska Epidemic

In May of 1909 a case of anterior poliomyelitis was imported into that county, and by July 4 thirty cases had occurred in and about Stromberg. Against the advice of the physicians, the people had a public Fourth-of-July celebration, which was well attended, and in less than thirty days following they had one hundred and fifteen cases in Stromberg and vicinity. On July 21 the Nebraska State Board of Health authorized quarantine and within twelve days they had the epidemic well under control, only fifteen scattered cases occurring after that date.

While the contagiousness of this malady has not yet been proved in the Mason City epidemic, the first case seemed to be a center of infection, inasmuch as nine or ten cases developed within a block or two of this case; and finally fifty-three cases that showed paralysis have been reported in and about Mason City.

The data collected in Scandinavia indicate that the contagion can be carried by intermediate persons from the stricken to the healthy, and from patients not frankly paralyzed but suffering from slight or so-called abortive attacks; the period of incubation being from five to thirty-three days and the average about ten days.

The Specific Microorganism

The discovery, almost simultaneously, by Drs. S. Flexner and Lewis of the United States, and Drs. Landsteiner and Levadite of France, that the infectious agent is a minute microorganism, as also the successful inoculation of monkeys with portions of the spinal cord of infected human beings by Dr. Flexner in September, 1909, leads us to hope that we may soon have a more complete knowledge of the etiology.

Dr. Mettler says, the symptoms of acute anterior poliomyelitis are marvelously definite and uniform. The clinical picture develops and progresses through stages that are singularly distinct and logical, a typical case, except in the very earliest onset of the disease, presenting no great difficulties in diagnosis.

Remembering the pathology, one can readily understand why every case should show

*Read before the Pocahontas County (Iowa) Medical Society, Oct. 14, 1910

progressively the following four symptomatic stages, namely: (1) infectious fever; (2) widespread sudden, flaccid paralysis; (3) recession of the widespread paralysis, with permanent paralysis and atrophy in certain individual muscles; (4) deformities resulting from wasting of muscles and contractures.

The Early Symptoms

I will discuss briefly the symptoms of the first stage, as that is the one that we, as general practicians, are more apt to meet.

The beginning of the disease is usually abrupt and unexpected. A child after a happy day with its playmates, romping and playing outdoors, comes in and complains of extreme weariness and distress; its head begins to ache; it is nauseated and may vomit; it is listless and clings to its mother's arms; perhaps it has a violent chill; the face becomes hot, dry, and flushed; it may soon become stuporous and even slightly delirious; there may be general convulsions; the child refuses all food; and in every way it shows that it is extremely ill and feverish, the temperature being anywhere from 102° to 104° F. In the morning the child wakens with perhaps a slight diminution of the febrile symptoms but completely paralyzed in the legs or arms.

The question that interests us is, What shall we do?

I am of opinion that it may help us in selecting a remedy that will benefit our patients if we will consider the experiments of Crowe with urotropin (official name, hexamethylenamin; also known as formin, etc.), as published two years ago in *The Johns Hopkins Hospital Bulletin*, which demonstrated the constant early appearance of urotropin in the cerebrospinal fluid even after the ingestion of relatively small doses by the mouth. Dr. Crowe also showed the antiseptic action of urotropin upon bacteria when introduced subdurally.

The Use of Urotropin, With a Case-Report

Acting upon this suggestion, Dr. Robert Preble of Chicago administered urotropin in two cases of infantile paralysis shortly after the onset of the paralytic phenomenon. The paralysis did not extend further in either instance and both cases made good recoveries.

Hence, in addition to our former treatment with laxatives, to unload the bowel, thus removing part of the toxic poison from the system, and with salicylates, to quiet pain, reduce fever and combat toxemia, we also have urotropin, a proved antiseptic for the cerebrospinal fluid, which should give us much assistance while we wait for the discovery of a specific serum.

On September 16 I was called into the country to see F. K., a boy aged 11 years. His temperature, I found, was 102° F., and the patient complained of aching in legs and arms, but I did not find any special cause for illness unless it might be some infectious fever. I gave laxatives, to clean the bowels, and salicylates, to quiet pain and reduce fever.

Then the family informed me that the hired man, R. T., aged 20 years, was not well and called him downstairs to consult me. This young man, a member of the state militia, had just returned from a ten-days' camp, with the other boys, in Wisconsin (August 10 to 20), where he may have been exposed to infantile paralysis. He thought the water there was impure. His temperature was normal. He had complained of considerable aching and itching of legs and arms for one week past. I prescribed for a cold, which I thought might explain his symptoms. That afternoon he came to town, two miles, and did not seem seriously ill. The next morning, September 17, he was worse and my colleague, Dr. Herrick, being his friend, was called.

He then complained of severe pain in legs and arms, with headache. That evening his temperature reached 102.5° F., and he lost the use of his legs. The next day his parents came and removed him to their home in Webster City, Iowa. Here he suffered intensely for some days, with resulting paralysis in both legs and arms. I have been unable to get a report of his treatment, but learn that he is now improving somewhat, although still paralyzed.

The day after he was removed to his home I was again sent for to see the boy F. K., mentioned before. I found his temperature reduced but general soreness of legs and arms, and suspected that he, too, was developing infantile paralysis. I gave

him urotropin in 5-grain doses four times daily. He took this treatment for about one week and his symptoms gradually disappeared. He did not show the paralytic phenomenon, but his other symptoms were so much like those of the case reported that I, knowing he had been exposed, felt it was the same infection in both cases. I am of the opinion that the agent which checked the progress of the dreaded paralysis was the urotropin.

[Acute anterior poliomyelitis is very prevalent in the country—alarmingly prevalent. The writer heard of a case on his own street only a few days ago; yesterday, one of our staff reported another case, near us, and already many of our subscribers have written, asking for advice and help. Not only are there many cases of the disease, but in addition to the large number of permanent paralyses following it, there are many deaths. Naturally every doctor is reaching out for every possible crumb of comfort and helpfulness.

Dr. Townsend's suggestion, that urotropin be used, will undoubtedly be put to the test by many of our readers. The method seems to have a logical basis. Urotropin, as our readers of course know, has many other names, urotropin being the superior proprietary first introduced. The official name is hexamethylenamin. It probably decomposes within the body with the formation of formaldehyde, a very powerful antiseptic, and this is eliminated by the urine. It is often combined, to good advantage, with the lithium salts, the benzoates and arbutin.

The importance of securing and maintaining a clean and as nearly as possible aseptic alimentary canal is as important in this disease as in other of the infectious ailments. The preliminary calomel-saline purge and the intestinal antiseptics will immediately suggest themselves to every thoughtful physician. Then the tendency to congestion of the spinal cord should be arrested if possible—and at once. For this purpose some powerful spinal sedative seems indicated. We learn that one of our Iowa friends, who has been called upon to treat a number of cases, has had excellent success with gelsemium, but he pushes this to the full physiological effect, which is shown by drooping of the eyelids—in some cases ptosis. Instead of the fluid preparations of gelsemium, which are notoriously unreliable, we suggest the use of gelseminine. These two suggestions seem worthy of trial. Read the first "Miscellaneous" article.—ED.]

The Alkaloids of the Atropine Group

By E. ROBERT TISSOT, M. D., Chaux de Fonds, Switzerland

EDITORIAL NOTE.—This is a continuation of Dr. Tissot's interesting study on the alkaloids of the atropine group, the first part of which appeared in "Clinical Medicine" for July, page 737. This sequel should have appeared earlier but was unavoidably crowded out. We have in hand another paper by Dr. Tissot upon this alkaloidal group, which will appear in an early number.

SECONDARY UNFAVORABLE EFFECTS OF BELLADONNA

IN this paper it will be shown how very necessary it is to employ only atropine, the active principle, rather than the galenic preparations of the plant, and to administer that substance only according to dosimetric rules.

Disturbances in the Skin.—Redness with tumefaction, which may simulate erysipelas, has been reported to have appeared as early as twenty minutes after the absorption of atropine. This may persist for as long as three or four days, and it has been mistaken for erythema due to the sun's rays. At other times there has appeared an urticaria showing a tendency to induration. Vesicular eruptions are not infrequent and may cover the entire body. Such phenomena have been reported after a single dose of 1-200 of a grain. Fortunately they are not very dangerous and, by demonstrating the

powerful character of this agent, they serve to stimulate us to exercise extra caution.

Digestive Disturbances.—The prolonged administration of belladonna produces dryness of the mouth, anorexia, vomiting, diarrhea and colic, all due to a perversion of the gastric secretions.

Genitourinary Disturbances.—One single weak dose of the drug has given rise to albuminuria accompanied by delirium. Belladonna may pass over from the mother to the fetus. Thus a woman in labor took 1-30 of a grain of atropine. The labor-pains ceased and it became necessary to apply the forceps, and the child, when delivered, was asphyctic and its pupils were dilated to the extreme.

Disturbances of the Circulation.—Palpitation is far from being an infrequent sequel of the ingestion of belladonna. In the same manner epistaxis and other forms of hemorrhage may result.

Respiratory Disturbances.—Cases have been observed in which the respiration became labored, stertorous or wheezing, the patient experiencing at the same time a stifling sensation.

Disturbances of the Nervous and Sensory Centers

As affecting the eye, atropine may, upon prolonged use, irritate the conjunctiva; it may also produce blepharoconjunctivitis with irritation, itching, lacrimation, and eczema of the eyelids and surrounding skin. At other times objects looked at have appeared to the individual as though surrounded by a fog or showing the colors of the rainbow with their borders indistinct. In dim light the patient may notice a trembling shimmer and peculiar phosphorescent shapes. In those who are very susceptible, prolonged use of atropine may produce an attack of glaucoma.

Headache appears especially after meals. Vertigo, insomnia, distress of mind are not rare. Instillation of atropine into the eye may produce psychic excitement or an actual toxic mania. The patients declare that they are the "tree of life" or the "blessing of God." (Lewin, "Nebenwirkungen.") Still other patients bite, grind their teeth, and have attacks of mania or persecution. Others laugh, applaud, chatter, and then fall into a deep sleep.

The motor centers may also be affected, and this may lead to disturbances in walking and to motor incoordination. There have been observed paraplegia, trembling, convulsions, spasms, trismus, disturbances of speech.

All these facts here enumerated, which are terrifying enough in themselves, should, however, not restrain us from employing this drug, although they do teach us that it must be administered with prudence; and prudence, in pharmacotherapy, means dosimetry—and only that.

Acute Belladonna-Poisoning and Its Treatment

The clinical picture of acute belladonna-poisoning is absolutely typical, because of the well-established action of atropine, its active principle, on certain organs; for here atropine excites, there it paralyzes.

Atropine paralyzes the peripheral extremities of the oculomotor, the sphincter of the iris, the tensor of the choroidea, thus producing dilation of the pupils and paralyzing the power of accommodation. It paralyzes, also, the nerves which regulate the secretion of saliva and of sweat. It paralyzes, further, the cardiac fibers of the tenth pair of the cerebral nerves, the bladder, the intestine.

On the other hand, atropine stimulates the respiratory centers, the vasomotor centers, and especially does it stimulate the gray substance of the brain, which later, however, is paralyzed. To this action is attributable the influence which manifests itself in psychic phenomena.

Toxic symptoms appear from fifteen to twenty minutes after the external application or the ingestion of atropine. If belladonna berries have been swallowed, the symptoms do not appear for two or three hours.

The first *sign of poisoning* is a sensation of dryness in the pharynx which leads to an intense thirst that water cannot quench. Deglutition becomes difficult, the voice is rough and sharp, the mucous membrane of the mouth and of the pharynx is reddened and appears a bright-scarlet. Face and neck are also red but not the rest of the body. The skin is dry, perspiration is

entirely absent. The pupils are dilated. The heartbeats are much accelerated, as are also the respirations, which latter are very deep. On the part of the nerve-centers, frontal pain and vertigo make their appearance; then the ideas become confused; hallucinations of various kinds occur; psychic excitement may become extremely intense. Consciousness disappears after from twenty to thirty minutes, but the patient may continue to laugh, to cry, to beat at his surroundings, and to commit other acts of violence. Sometimes he will roll over and over. Trismus and clonic convulsions of the extremities have often been noticed. In fatal cases the loss of consciousness is preceded by delirium. Coma and general central paralysis is followed by death.

Treatment of Atropine Poisoning

When the poison has been taken by the oral route, it is necessary, first of all, to empty the stomach and the intestines as quickly as possible. For that purpose emetics are given (ipecac combined with tartar emetic, or hypodermics of apomorphine). If the patient has eaten belladonna berries, it is useless to attempt washing out the stomach because the berries cannot pass through the eye of the stomach-tube. I have, in times gone by, followed the advice of the classics and attempted to use the stomach-tube, but always unsuccessfully for this very reason. After the emetic has acted, castor oil should be given in order to remove any poisonous substance from the intestines.

It goes without saying that emetics and purgatives may only be given at the beginning of the intoxication, that is, during the first hours. Later, stomach and intestines are paralyzed by the atropine and can no longer react. In such cases it becomes necessary to administer large intestinal flushings with soapsuds. At the same time it is well to introduce into the stomach weak solutions of tannin or of potassium permanganate, in order to precipitate the alkaloid.

Morphine As an Antidote

When the general symptoms of poisoning have become manifest, it is, above all, necessary to reduce the enormous psychical excitement. Here morphine is of particular benefit. It diminishes the motor excitement and the maniacal conditions and produces rest and sleep, while at the same time it removes the danger of exhaustion by the motor excitement.

The doses of morphine to be employed in poisoning by atropine must be determined very accurately. They must be amply large to control the exaggerated movements, while, on the other hand, they must be sufficiently small so as not to bring on collapse. It is well to remember, in this connection, that persons poisoned with belladonna will bear relatively large doses of morphine, and this fact holds good even in children who, as we know only too well, are extremely sensitive to the action of morphine.

In some cases, however, morphine has been actually harmful and so some authors have advised to replace it by chloral hydrate. In my own humble opinion, this would mean to fall from the Charybdis into the Scylla, for has not Lewin long ago said that chloral hydrate should be stricken from our list of medicines?

The morphine should be injected under the skin in the following dosage:

Hypodermic Dosage of Morphine in Atropine Poisoning

Dose of	morphine,	at	2	years of	age,	1-100	grain
"	"	"	"	4	"	"	1-30	"
"	"	"	"	7	"	"	1-12	"
"	"	"	"	10	"	"	1-8	"
"	"	"	"	13	"	"	1-6	"
"	"	"	"	17	"	"	1-5	"
"	"	"	adult				1-4	"

This dose is to be repeated every two hours until the patient is quieted. At the same time, strychnine, in doses of 1-600 to 1-60 of a grain, according to age, should be injected, and this repeated from three to five times in twenty-four hours. This drug is intended to prevent the collapse which is always a possibility.

I advise the hypodermic administration of these two remedies and against the oral route, because the stomach should be left free for the action of emetics, for the antidotal solution of potassium permanganate or of tannin, and later for stimulating astringent drinks, principally black tea and coffee without milk.

When coma has set in, it may be advantageous to administer hypodermic injections of caffeine of, say, 0.01 to 0.20 Gram (1-6 to 3 grains).

For the *prevention of coma* we may properly employ the ambulatory treatment. Two assistants seize the patient, each under an arm, and make him walk, willy-nilly, through the house or in the open air, for hours, with small periods of rest every fifteen minutes; and during these periods of rest the patient may be made to drink strong tea or black coffee, or the dose may be introduced through the stomach-tube. In children the fatal sleep may be prevented by shaking them and talking to them.

Patients poisoned by atropine become easily cold, and therefore must be well covered and carefully clothed.

During the period of coma it is necessary to draw the tongue forward so that it may not drop back into the throat. In fact, we must take the same precautions as in ether or chloroform narcosis.

After the acute symptoms are relieved, the very persistent *ocular disturbances* are treated by instillations of eserine solution of 0.05-percent strength. The dryness of the mouth will yield to pilocarpine, 1-60 of a grain for children of two years and over, up to 1-5 or 1-3 of a grain for adults.

The bladder must be watched and must be emptied with the catheter if necessary. A simple *retention of urine* has often been mistaken for anuria.

In a later paper I shall speak of hyoscyamine, hyoscine (and scopolamine) and duboisine. I will here only mention that hyoscine may, in dosimetric therapy, be substituted for atropine in almost all cases, because its action is more gentle and it is less dangerous.

Flat Foot and Its Treatment

By HARLAN P. COLE, M. D., New York City

THE difficulties attending the condition called flat foot are due to a lack of perfect balance of power between the different muscles of the leg as applied to the problem of perfectly balancing the weight of the body in the different positions it must assume, and assume for a long time.

When every muscle possesses its full amount of vitality, and the person is called upon for only the medium amount of effort, then the balance is perfect and there is no trouble. But when the vitality of one or more, or of all, is reduced, or when the weight is increased (or must be borne for a longer than ordinary length of time), the balance between weight and power is imperfect and something is crowded out of alignment. This necessitates the adjustment of something in the opposite direction, so that the equal division of the weight on both sides of a plumb line, which rises vertically from the center of the foot resting upon the floor or ground, will be continually maintained. This problem of balancing the body on the foot involves continuous attention of all the muscles of the leg and of many of the trunk, and the more difficult the act, the greater the strain.

The Anatomical Explanation of Flat Foot

In order to secure elasticity, or spring, the point at the rear end of the foot which touches the floor (and over which the lower end of the leg is placed) is not directly in line with the leg, but to one side, nearer the outer margin of the foot. To atone for this lack of alignment the muscles that pass from the leg to the inner side of the foot are larger, stronger and more numerous than those on the outer side, and they are thus able to carry the greater burden and preserve the balance of the leg. On this account, if all the muscles weaken, the foot rolls inward, or toward the inner margin, and flat foot or, more properly, pronated foot, results.

As the ankle is a mortised or square joint, it becomes "jammed" when the foot turns to either side on its long axis, and motion becomes more and more limited as the deviation increases. This limitation of motion prevents the adequate action of the leg-muscles, and inhibits the returning of the

venous blood; therefore, in most cases of flat foot there is more or less edema of the leg, the extent of the swelling being determined by the amount of the deviation and the length of time it has existed.

The Arch-Ligaments Do Not Stretch

Much has been said regarding the stretching of the ligaments in the arch of the foot and its responsibility for letting the arches down. If this ever did occur, the foot would permanently lose its ability, for it would soon become concave on its upper surface—and it could never recover. As a matter of fact the ligaments are so arranged that this could never happen, for they are all cemented together into one mass with their fibers so intertwined that stretching is impossible. This, of course, applies only to the longitudinal arch. The transverse, or anterior, arch is controlled by the leg- and foot-muscles, and depends for its contour on the strength of these muscles and on the shape of the bottom of the shoe and the position of the foot—that is, whether it is or is not rotated inward or outward on its long axis.

When I speak of rotation, I refer to the turning of the foot under the pressure of the body-weight, and it is the top of the foot which changes position, being pushed inward or outward by this force. The whole difficulty consists in a sagging of the foot inward and forward, the metatarsal bones all turning toward their inner surfaces, and their distal ends being crowded outward, the weight falling somewhat on the inner margins instead of on the under surfaces. This is especially true of the great toe; and this improperly located pressure, added to the lateral strain upon this joint, accounts for the inflammation at the great-toe joint and the resultant enlargement, called bunion, and which is improperly considered an enlargement of the bone and is often improperly operated upon. This operation is entirely unnecessary, for the restoration of the foot to a normal position relieves the strain on the joint, whereby the cause of the disease is removed and recovery is insured, with the normal use of the joint.

Flat foot often is attributed to the "habit" of out-toeing. While I must concede the possibility of the acquirement of such a habit, I am convinced by long and careful study that the inward and forward sagging and rolling of the foot, and the consequent oblique position of the tibia on the top of the foot, drives the center of the foot inward and the front end outward, and that consequently the disease comes first and the position afterward. In this position there is a strong transverse pressure at the mediotarsal joint—and in a direction that is not intended. But this does not entirely account for the outward pointing of the toe, most of it being due to a rotation of the whole leg at the hip-joint. This is found easier by the sufferer; the pronation of the foot renders the ankle-joint less movable, and it is easier for him to point his toe outward, and roll the foot from the outer to the inner side, than to attempt to go from heel to toe—in fact, the heel-to-toe act is almost impossible.

The location of the heel of the ordinary shoe directly under the os calcis, which is to one side of the weight-line of the leg, raises the pressure-point farther above the floor and lessens the ability of the muscles to control it.

The Treatment of Flat Foot

In discussing the treatment, I may be forgiven for attempting to explain why the treatment advised in the books has met with so little success. So far as I can discover, five methods are advised: (1) Arch-prop; (2) strapping; (3) braces; (4) operation; (5) educational and developmental exercises.

The arch-prop fails to correct rolling of the foot, because it is placed inside an incorrect shoe that permits the rolling, and the prop and the foot go over with the shoe. Furthermore, the prop is often so painful that it is intolerable.

Strapping is of very little benefit, for if a corrective position can be accomplished, either the foot cannot be used while in that position, or the straps soon slip and the same old incorrect position is resumed. One surgeon has his patients hold the foot in an "overcorrected" position for an hour every evening. Even if they do this faithfully, it is but one hour out of the ten that the patient is on his or her feet, and the

advantage is largely on the side of the deformity.

The brace has proved itself so ineffective that it is now seldom advocated by the profession. The reason is that it is such a handicap that it reduces the vitality of the leg muscles, and they are less able to carry their burden.

An operation for fixing the joint may prevent the rolling of the foot, but it necessitates

Fig. 1. "The condition called flat-foot begins with a sagging and rolling of the foot toward the inner border"

walking without the use of the ankle-joint, and this causes a change in the position of the whole leg and part of the trunk, which leads to almost if not quite as much difficulty as the operation was called upon to correct. Tendon transplanting has failed notably.

Educational and developmental exercises are at best practised but a small part of the time, even with the faithful, so that the advantage is again with the deformity—more than ten to one—and the treatment almost inevitably fails.

If all this is correct, the question arises, What is to be done?

The only answer to this is that some means must be provided whereby the foot will assume a normal position every time the body-weight is brought to bear upon it and maintained in that position all the time the weight is resting upon it. The remedy must permit of the normal action of all the joints involved in walking, and of all the muscles that move all the joints. To this end I have, during the past twenty years, given much time and study to the making of a shoe that will accomplish this purpose.

The Shoe that Corrects Flat Foot

The surgeon has never given much time to the study of shoe-making, and the shoemaker or shoe dealer has never studied anatomy or done much in the line of dissecting. As a result of this study, I have designed and developed a shoe the interior of which is built and shaped to the contour

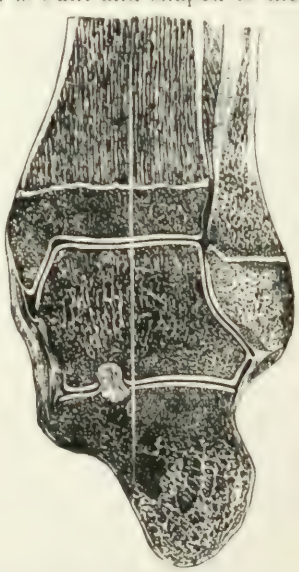


Fig. 2. "The shoe must be supplied with a resisting point directly under this most important weight-line"

and position the foot should occupy during the act of weight-bearing and walking, while the shape and position of the bottom of the shoe prevents its departing from that contour and position under pressure from above

or below. To this shoe the name "Anatomik" has been applied.

The construction of the Anatomik shoe is based on the philosophy of the development of the condition for which it is used.

That is, the condition called flat foot begins with a sagging and rolling of the foot

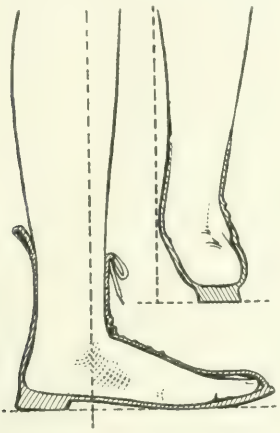


Fig. 3. With the ordinary shoe "much strain comes on the bottom of the foot, especially its inner margin"

toward the inner border, first at the point where the tibia is attached to the astragalus, and where the head of the astragalus articulates with the scaphoid. The shoe, to prevent this act, must be supplied with a resisting point directly under this most important weight-line, and the neighboring parts of the shoe must be so shaped and constructed that they will aid this resisting point and take some of the weight-pressure, so that it will not fall on too limited a surface lest pain and inflammation result or the limited surface be not sufficient to accomplish the purpose.

Fault of the Ordinary Shoe

In the ordinary shoe the narrowest part of its base is the point directly under the tibia, and this point is made narrow by cutting away the sole of the shoe from its inner border, so that in looking at the under surface of the shoe we shall see that, whereas the inner border of the part occupied by the foot is carried almost straight forward from the rear end, that part of the sole to which the heel is applied curves gradually toward the outer margin, so that it becomes narrowest just in front of the anterior border of the heel. Under this narrowest part there is usually no support, and much strain comes on the bottom of the foot, especially its inner margin, for it is over this inner margin that the tibia is located.

In the Anatomik shoe the sole is wider at the point described than at any other except at the ball, where the foot is widest, and the

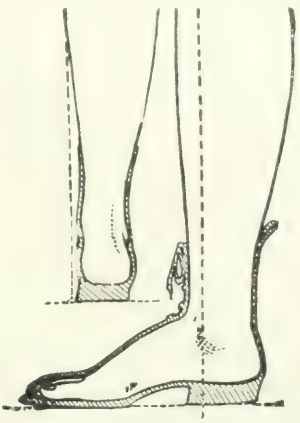


Fig. 4. In the Anatomik shoe the sole is wider and the heel carried forward

heel of the Anatomik shoe is carried forward until it arrives at a point under the anterior border of the lower end of the tibia.

The sole of the shoe is also adapted to the shape of the foot, so as to prevent the sinking of the distal ends of the central metatarsal bones and lateral pressure toward these central bones. It also prevents undue local pressure on the under surface of these

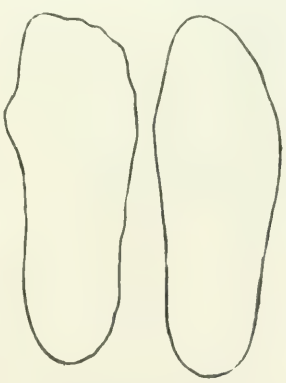


Fig. 5. The sole should be adapted to the shape of the foot

bones at the point where callosities are always found.

The shape and size of the Anatomik heel have impressed the people, the shoe dealer and the profession alike with the idea that

the whole merit of the shoe was contained therein alone. But this is only a part of its merits, the other being embodied in the contour of the whole shoe. The heel, however perfect, would be of little use without a proper place to attach it.

It is usually considered that all feet differ, and therefore one model cannot be used for

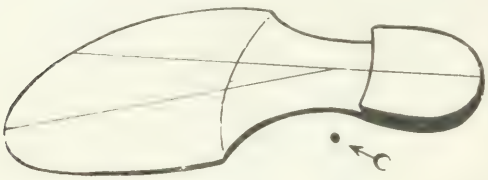


Fig. 6. Heel of ordinary shoe

all. To this I would answer that the teachers of anatomy the world over do not use the same foot for illustrating their lectures, still all the students learn of the same bones by name, number and shape, and each foot is a perfect model of each other, the only difference being in size.

All flat feet develop in the same way, in the same direction, for the same reason, because of the same attachment of muscles and the same location of the weight-bearing point. Flat-footed people all need the same kind of treatment, the only difference being in the amount of adaptation of the remedy, therefore the same design of shoe when adapted to the length and width of the foot will do for all flat-foot cases.

Experience shows us that the condition called "flat foot" causes more than seven-tenths of the foot-difficulties, therefore seven-

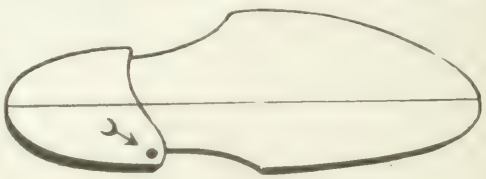


Fig. 7 Heel of Anatomik shoe

tenths of the foot difficulties require the same kind of a shoe. On this account, and in order that they may be available for the use of the profession, the shoes are made in all regular sizes, and are being placed with one shoe dealer in every city of importance all over the country. Physicians may procure them for their patients in those cities where agencies have been established already, or from the headquarters of the Anatomik Footwear Company, in New York City.

The Nez Percés Indians

By CHARLES STUART MOODY, M D., Sandpoint, Idaho

EDITORIAL NOTE.—This is a continuation of the series by Dr. Moody. In it the Doctor describes some of the history of the tribe since the coming of the whites. The story will be continued next month.

III.—ENTER THE PALE FACE

UPON the return journey the explorers halted for several days at Kamiah and gathered up their horses which had been left with Twisted-Hair when the journey to the Pacific was begun in boats. It was probably at this time that a strain of white blood was poured into the Nez Percés' veins, as was also a slight tinge of African, for Captain Lewis' black servant was very popular with the dusky ladies. Thus the whites, as has ever been their wont, sowed the seeds of future distrust of all whites among the Indians.

When the travelers had collected their horses and set out upon their return across the Bitter Roots, they were accompanied by several of the young men of the Nez Percés. Possibly some of these Indians remained with the expedition until it had reached the borders of white settlement on the east, thereby gaining a knowledge of the white people. There is a story current that early in the '20s a delegation of Nez Percés Indians journeyed to St. Louis in search of someone to teach them of a Book of which they had heard from the explorers. Diligent inquiry among the older men of

the tribe has signally failed to corroborate this narrative in any degree. The thought doubtless had its birth in the enthusiastic mind of some zealous missionary.

The interval between 1806 and 1837 is enveloped in obscurity. A few trappers

Too-Lah, an old Indian woman from whom I gleaned many things

both of the Hudson Bay Company and of the Northwestern Fur Company penetrated the country of the Nez Percés and skimmed the cream of the rich furs.

The First Clash With the Whites

The first Nez Percés blood shed by the whites was by a citizen of the United States, and no words are sufficiently derogatory to condemn his action.

John Clarke, one of the partners with John Jacob Astor in the American Fur Company, found himself, May 30, 1812, in the country of the Nez Percés. The American Fur Company had died. Great Britain had stepped in and ordered the Yankees off British soil. A portion of the American contingent at Astoria had shipped for home by way of the Sandwich Islands, another contingent left *via* the Columbia and Snake rivers for the East. It was their intention to visit the various trading points in the interior and inform the residents of the change in affairs. This duty was delegated to Clarke and his party.

Clarke was a tall, good-looking man, but very haughty and much given to pomp and circumstance. He would not use the same drinking vessels employed by his companions but reserved for his own use a handsome silver goblet, which he guarded with great care. The Indians saw with what reverence this vessel was used and so jumped to the conclusion that it was "*wy-ya-kim*," that is, sacred, and consequently "great medicine." One of them, watching his opportunity, stole the sacred vessel, but was immediately detected. With great harshness Clarke tried the culprit by drumhead court martial and executed him, despite the protests both of his own men and the Indians.

Pot-Latch Fanny—the meanest Indian that ever lived

This, so far as history records, was the first Nez Percés blood shed by white men, and that it was very ill-advised and hasty will be admitted by all. The Indians did not resent the crime, but there is little

Medicine Man (Tu-at) in full regalia, but carrying rifle instead of drum or rattle. Flag for signaling

Nez Percés type. Note design on hand-bag. Work done in grass fiber

doubt that the memory of it remained with them. In fact, I know it did, for they have often told me of it, and always more in sorrow than in anger.

The Coming of the Missionary

Until the establishment of the mission at Lapwai Creek the Nez Percés had but little direct association with the whites. The Hudson Bay Company had posts established near the Pacific Coast and a few trading points in the interior. None of these, however, were among the Nez Percés, their country being too remote. Such knowledge as they possessed of their white cousins was gleaned from occasional visits to the trading posts.

About 1830 the American Board of Commissioners for Foreign Missions turned its attention toward the West. The commissioners became enthused with a great desire to Christianize the savage Indian tribes inhabiting the vast region explored by Lewis and Clarke. Prior to this time missionary efforts among the tribes of the Plains and those of the Pacific Coast had been confined to the few Jesuits that had entered the country, principally as attachés of the Hudson Bay and Northwest Fur Companies. Just how much the knowledge that the catholics were working among the Indians influenced the American Foreign Mission Board cannot be estimated; that it had some effect is quite evident.

In 1835 Rev. Samuel Parker and Dr. Marcus Whitman were appointed a committee to explore the region from St. Louis to the Pacific Coast and report on the advisability of sending religious teachers into that region. They set out upon their journey in March and remained together until they had reached Green River, Wyoming, when Dr. Whitman turned back, leaving his companion to pursue his journey alone.

Mr. Parker spent some two years in his survey, during which time he visited all the principal tribes of the Pacific Coast, including the Nez Percés. He returned to the East and laid his report before his Board, with the recommendation that no time be lost in cultivating the religious field lying ready to the plow.

Catholic Indian mission. Built 1841, without nails. Still in use

Afterward Mr. Parker published his experiences among the Indians, in a quaintly written volume which contains a great many things that are not true as well as a great many that are. His zeal for his church led him to construe many things the Indians said into most earnest pleadings for religious light. He asserts that the Nez Percés, for instance, followed him for days, begging him to return and remain among them, teaching them the way of truth.

Whitman's Expedition

Even before Mr. Parker had reached home, the Mission Board, by reason of letters forwarded by him, was getting ready an expedition looking toward the establishment of a chain of missions in the West. This expedition was under control of Dr. Marcus Whitman, who afterward lost his life at Waiilatpu. One member of Whitman's party was the Rev. H. H. Spalding, with whom we have somewhat to do. Spalding seems to have been an opinionated, overbearing, conceited, ignorant bigot, who had a most excellent wife. His one redeeming virtue was an indefatigable industry. He was a horse to work and he insisted upon everybody around him doing so also.

When the party reached the Grande Ronde, traveling over the "old Oregon trail," Spalding left his chief and, in company with some Nez Percés who were journeying with the expedition, turned across into the Nez Percés country. He doubtless was induced to do this by the praises given the Nez Percés people by Lewis and Clark and thought they would prove teachable subjects. He reached Lapwai Creek and, in 1837, established the first protestant mission on the Pacific Coast — that is, unless Dr. Whitman had reached the Walla Walla Valley before Spalding reached Lapwai. The missionary effort was crowned with success from the first. The savages proved willing learners and many of them professed Christianity.

It may be as well to observe here that a profession of Christianity on the part of

Half-Breed, Nez Perces type. Note influence of white contact in dress

an Indian does not imply that the Indian becomes a Christian in all that civilized people understand by the term. The Indian may conform to all the externals of the faith, but he holds in reserve a proviso that if the new belief does not satisfy his soul's desire he can revert to his ancestral teaching, and it is safe to assert that the new faith never does satisfy. The teaching of the Christian religion may be all right for the Indian to live by, but when he comes down to the shore of the Dark River he very promptly lays aside the robes of the Nazarene

Child types. Note adenitis (tuberculous) in child's picture

and dons those of his red gods. I am well aware that this assertion will meet with disapproval on the part of those zealous ones who have spent their lives fondly believing that the proper solution of the Indian problem is to Christianize them.

The Effort to "Civilize" the Indians

Mr. Spalding set to work with commendable energy to make the Indians self-supporting. He fenced fields and tilled them, using the Indian ponies which he broke to harness. The soil of the Kooskia is very fertile and the seed planted throve amazingly. Fruit trees were planted, many of which remain today bearing their yearly burden of fruit. He established a mill and ground the grain into flour. While he was doing this Mrs. Spalding established a school and taught the women the essentials of housekeeping, also dressmaking. It is amusing to note that even now the Indian women fashion their garments after the patterns taught them by Mrs. Spalding. As before suggested, Mrs. Spalding was a lady of rare good sense and excellent tact in dealing with the Indians. She kept the balance between the irascible character of her spouse and the natural indolence of the Indians.

As the years rolled away other missionaries came and established other missions. One was erected at Kamiah near the confluence of the Lochsaw with the main Kooskia. This was not destined to prove a decided success. Chief Looking-Glass, then a young man, was just coming into power among his tribe and, having himself been educated by the catholics, foresaw the effect of educating his people. He opposed the mission so strenuously that it became necessary to abandon it. For years no teaching was carried on at Kamiah until the sisters McBeth came and resumed the work. One of them, Miss Kate C. McBeth, remained among the Kamiah tribe until long after my advent among the Nez Percés, and that she did a good though somewhat restricted work none may gainsay.

The Catholic Missions

About the middle of the nineteenth century the catholics directed their attentions toward the Nez Percés. They were impelled to do this by reason of many members of this tribe attending their school and church at St. Ignatius Mission on the Flathead in Montana. The Flatheads are blood-cousins of the Nez Percés and the association between these people is quite intimate. While the catholics did not establish missions among the Nez Percés until later, they did send traveling teachers, and many of them professed at least nominal allegiance to the church of Rome. They afterward established a mission and farm school on Lapwai

Creek, several miles above where the Spalding mission stood.

Justice to the catholics compels the statement that their method was far more successful (as it has always been with savage peoples) than those of the protestant societies. For one thing, they taught the Indian to observe the forms of the religion without attempting to instill into their minds polemical doctrines. They, further, urged the savages to become industrious and frugal. And it is a fact to this day that the catholic Indians among the Nez Percés are the most well-to-do and prosperous of all.

For fear that my readers will discover an inconsistency in the above statement, when compared with what I have previously said in regard to Spalding, I will make this explanation: Spalding *did* teach the Indians industry, and had he lived a century his labors might have borne fruit. He retired from the missionary field, however, and took up secular pursuits. Those who came after were less industrious physically and more zealous religiously; in consequence, while their converts became religionists, they neglected to provide flour and meat.

The Advent of the Soldier

The advent of the soldier among the Nez Percés, as in all other Indian tribes, was an event fraught with the most distressing consequences. The "man behind the gun," while he might be the defender of the nation, is responsible for the destruction of the red man in a greater degree than any other one element. The ravages of syphilis among the Nez Percés can be traced directly to the appearance of the troopers at Lapwai. While the Nez Percés women were (and are) in the main chaste, they were (and are) much the same as their civilized sisters in that respect. Fine clothes, gaudy jewelry, and the many things dear to the feminine heart appeal to them quite as powerfully as they do to the women of the scarlet dress and peroxide tresses. Ignorant as they were of the terrible consequences of the luetic disease, it was only a few years before it became inoculated throughout the entire people, until today it is a rare thing to see an Indian not tainted with the consequences of civilized (?) licentiousness and vice.

The savage Indian has always been virtuous. Inoculate that same Indian with a tinge of civilization, and he becomes lewd. No people learn sooner than do the Indians that the sexual passions are the one thing for which the white man will sell body and soul to gratify them. What a horrible commentary on our boasted enlightenment.

The Discovery of Gold

In 1861 gold was discovered on Rhodes Creek in the Nez Percés country. The camp of Pierce was born, and in the grand stampede into the mines the Indians got their second installment of association with the whites. The overland trail from Lewiston, at the mouth of the Kooskia, lay right through the heart of the Kooskia Indian settlements, and in the years from 1861 to 1869 the savages were thrown in contact with the worst element of Anglo-Saxon civilization. That that association was not conducive to the moral and physical well-being of the Indians goes without saying. It is astonishing that they did not suffer from the contamination more than they did.

In the course of time the rich gravels around Pierce were worked out, the miners sought newer El Dorados, and the Indians sank back to their old-time life led before the white man came. The few whites who had married Indian women, and an occasional prospector, furnished the Indians with their sole white companionship. Lewiston, once the bustling supply depot for all the placer-mining country, relapsed into a diminutive frontier village where an Indian came occasionally to trade, but in the main but few white people penetrated the heart of the Nez Percés country save on the Imnaha and Wallowa, where Chief Joseph and his people lived, which was filling up with homesteaders, much against the protests of the Indians.

This settlement of the Imnaha and Wallowa afterward terminated in the Nez Percés War, and the contact with the white people there engendered a hatred upon the part of the Indians which was only wiped out in blood. It was during the controversy over the lands that the Indians concluded

that the medal had lost its talismanic influence and they buried it.

It would be tedious to trace the ramifications of the scheme by which the Government gradually absorbed the Indian territory and peopled it with whites. Enough of it will be given in a future paper to show the causes for the war and the justification, judged from Indian standards, for the same. It will be enough here to state that by degrees the Nez Percés were shorn of their ancestral acres until, in 1895, they gave up their tribal form of government, took lands in severalty and attempted to approximate to civilized modes of living, an attempt which has resulted exactly as any student of savages might have foretold—in almost total extermination of the tribe.

The Climate of Florida

Considered from the Therapeutic Standpoint

By WILLIAM LEE SECOR, M. D., St. Petersburg, Florida
Formerly Head of the Department of Physiology and Professor of Therapeutics in the Chicago College of Medicine and Surgery

DURING the past few years much attention has been directed toward Florida by the extensive advertisements of various real-estate companies. In many of these advertisements some pretty broad statements are made, and if one were to believe it all, he would get the idea that all that is essential to procure perpetual health, wealth and happiness is to purchase a ten-acre tract of Florida land, then sit in the shade and watch it produce dollars at the rate of from five hundred to two thousand dollars per acre annually.

While I am quite sure that one can live in "peace and plenty" and maintain good health in Florida with less effort than almost anywhere else, yet nothing worth while can be accomplished here, as anywhere else, without the expenditure of an equivalent amount of brawn and brain.

The State of Florida is one of the greatest assets of our nation. Not because of its mines or forests, nor on account of the fertility of its soil—none of which are to be despised—but because of its health-giving climate. We as a people are just beginning to realize that national health is more important than national wealth.

The People Who Winter in Florida

Thousands of men and women from the North and the middle South who "do things" come to Florida each winter. Captains of industry, politicians, lawyers, physicians, clergymen and men of affairs who have been working on high pressure and overdrawing their vital reserve come here each winter, and after a few weeks spent in our ozoniferous breezes and glorious sunshine have accumulated a new reserve force and return home to take up their work with renewed zest and increased energy. If Americans only realized the important bearing that these national playgrounds and health resorts have upon our national welfare, that clearer brains and stronger nerves mean better citizenship, they would be quicker to grasp the importance to our people of Florida's climate.

After months of close application to business under the high-pressure of modern times nothing could be more beneficial than a sojourn in a climate that is especially conducive to perfect rest and relaxation.

Peninsulas have been sought as health resorts since the beginning of history. The wonderful climates of southern France, Spain and Italy have been immortalized in poetry and song, yet it is stated by those who seem to know that neither Europe or Asia or any other land can boast of a climate that is superior to that of our own Florida.

How little most of us in the North know of Florida as it really is! We think of it as a swampy, malarious section, so hot most of the year that it would be next to impossible

for white people to endure it. It is true that there is much swamp land in Florida, but this is rapidly being drained and converted into the most fertile truck gardens. On the other hand, there is plenty of high, dry land suitable for all-the-year residence. In some sections there is malaria, yes; but, then, I see no more there than I did up north.

The official Weather Bureau report shows the mean temperature at Tampa to be 57 degrees for January and 80 degrees for July. The highest temperature ever recorded at this station was 96 degrees, while 103 has been recorded at Chicago, 109 at Los Angeles, and similarly at other northern points. It is a positive fact that in some sections the summers of Florida are really delightful. It will get very hot in the sun, but in the shade the ever-present cool breeze makes it pleasant.

Where Shall the Doctor Send His Patients?

In sending a patient away from home for change of climate, the family physician must consider a number of questions. Thus, for instance, he must decide whether his patient will do best at a high or medium or a low altitude, and whether the atmosphere may contain a high percentage of moisture or must be dry. He must know whether there are high winds or sudden changes of temperature. He must consider the facilities for transportation, and whether or not proper accommodations may be obtained at the end of the journey. He should also know something of the physician under whose care he may place his patient while at the resort.

Florida is one of our most typical low-altitude resorts. In fact, we may here live practically at sea level. The highest point in this state has an altitude of only 301 feet. Florida may be reached from almost every section of the country without passing over mountains at high altitudes, which is an important consideration when heart-cases are considered. While the term "dry salt air" is used when speaking of Florida's climate, there is usually quite a high degree of humidity.

Florida is not subject to the sudden changes of temperature that we see in the high altitudes, as at Denver. In fact, the even and regular temperature-curve is one of the most important elements in its climate.

We find, however, that there is a decidedly marked difference in this respect between the east coast and west coast. The east coast is at the mercy of storms from over the Atlantic, while the west coast is protected from these by the intervening pine forests and its temperature is kept even by the influence of the warm waters of the Gulf which are several degrees warmer than the Atlantic Ocean at the same latitude. Inland Florida is preferable to the east coast in this respect.

Where to Go in Florida?

In sending a patient to Florida, the matter of exact destination, in many cases, is most important. If you are sending a patient who needs simply a change of environment and climate, on general principles, one that would be interested in and benefited by the most gorgeous of social whirls, send him down the east coast. If, on the other hand, you have a patient for whom you desire rest and relaxation in a most delightful climate but yet without the social life of the east-coast resorts, send him to an inland town or down the west coast.

In 1885 a paper was read before the Section on Hygiene and Sanatation of the American Medical Association in which the author took the position that after careful investigation and study of the climates of all sections of the United States he had decided that, without a doubt, the most healthful climate in the country is that of the Pinellas Peninsula (a subpeninsula of the west coast of Florida), and it was recommended that a great national health city be built at this point.

There are a number of towns on the west coast that offer good accommodations to the health seeker. After a careful study of the state I decided that the paper read at the A. M. A. meeting was about correct and so located at St. Petersburg, a town on the aforementioned Pinellas Peninsula, whither come thousands of seekers after health every year, and whence few go away disappointed.

Many in position to judge consider the climate of Florida superior to that of Cali-

fornia. At all events it is equal to it; and when the matter of distance is considered—which means so much to those not in good health—Florida should certainly be favored by physicians located east of the Mississippi. For certain, Florida is a "fountain of youth," for hundreds of elderly people have added years to their lives by spending their winters within its confines.

Don't Go North Too Early

A very common mistake is made, however, in returning to the North early in spring, for every year we learn of tourists who, after leaving the warm climate of the South prematurely, encounter cold, damp weather at home and as a result contract influenza, pneumonia or simialr ailments. One not in the best of health should remain south until the home climate is thoroughly settled. It is better to come late and return late than to come early and return early.

While almost any elderly or feeble person would be benefited by spending the winter in Florida, there are certain conditions and diseases that are particularly well handled in this climate.

In kidney diseases the increased activity of the skin, so manifest here, relieves the load on the kidneys and improvement is the rule. Insomnia and neurasthenia are almost always benefited and frequently cured. Asthma usually is relieved. Heart cases do well. Some forms of skin disease yield more readily to treatment here than they do in the north. Postnasal catarrh and chronic bronchitis are usually benefited although some types are aggravated. Chronic articular rheumatism and other forms of arthritis, neuralgia and neuritis yield to treatment more readily in this than in a less favorable climate.

At St. Petersburg, as well as at a number of other places in Florida, facilities are provided for the employment of hydrotherapy (such as hot-sulphur and salt-water baths, Turkish, electric-light and spray baths) as also for electrotherapeutic measures, including high-frequency currents and radiography. In fact, the means are at hand for the application of all the forms of modern physiologic therapeutics that have proven of value in the treatment of disease, so that northern physicians sending patients to Florida may prescribe almost any line of treatment and feel assured of having it correctly carried out.

Tuberculous cases, except those in the earliest stages, do not as a rule do well in this section. It is claimed that better results are obtained with these patients at inland places.

A mistake is frequently made by patients coming to Florida in that they think the more they are exposed to the sun the better. Investigation seems to show that prolonged exposure to bright sunlight has a detrimental effect upon the nervous system. This difficulty can be overcome, however, as I have found, by carefully shading the head, back of the neck, and eyes; the rest of the body will bear much sunlight and the patient be benefited.

One other mistake should be warned against. When one leaves the cold, frozen North and after a few hours spent on the train wakens to find himself amid the flowers and sunshine of a perfect June day, the tendency is to throw off winter clothing and don midsummer apparel. Under no circumstances must visitors, especially invalids, yield to this temptation, changes of clothing being made with great discretion and under the advice of the local medical man.

Amputation in Lesions of the Hand

When and How to Amputate

By RALPH ST. J. PERRY, M. D., Farmington, Minnesota

EDITORIAL NOTE:—In this month's paper Dr. Perry gives some very valuable advice on when to amputate and when not to do so. He very properly condemns the furor operativus in cases where conservative would be far better surgery. His advice is sound, and his directions in cases where amputation becomes necessary are based on personal experience and study.

II.—ILLUSTRATIVE CASES

AS TO the technic of amputations in the hand for trauma, there is no special need of instruction; the same aseptic and antiseptic measures are to be exercised as in other surgical procedures.

A careful study of the cases here presented will give a good idea of the procedures to be adopted in cases resembling them.

Case 1. Mechanic. Middle finger was caught between a set of loosely adjusted gears which a fellow employee was slowly turning; the second phalanx apparently was crushed and in excellent condition for amputation. Upon closer inspection there appeared to be fairly good circulation in the distal parts of the finger, so the crushed parts were cleansed with iodinized gasolin, carefully placed in a position resembling the normal shape of the finger, dusted with iodoform, wrapped in gauze, and the hand bandaged upon a woven-wire splint. This dressing was renewed daily for three days, when it was apparent the parts were going to survive the injury. The hand was then dressed upon a Marsee splint with lateral supports and dressed daily for three weeks, then semiweekly for one week, when the patient was discharged with a useful finger. Passive motion was instituted on the fifth day and active motion encouraged after the second week.

Case 2. Printer. In working around a paper-cutting machine, he included his left thumb in a package of cards he was trimming up, the thumb being cut square off just back of the distal joint. Fortunately the man was one who could be reasoned with and was soon made to see the necessity of cutting away part of the bone and soft parts in order to get material with which to cover the stump end. This was done, the flap being taken from the palmar tissues after sacrificing the dorsal, and in three weeks the patient was discharged with a serviceable thumb which has never bothered him in the subsequent twenty years of active work at his trade.

Usually patients presenting digits which are cut off squarely or obliquely (see following case) are the hardest kind to handle; they cannot be made to understand the philosophy of palmar flaps or the iniquities of palmar scars, and they usually have little faith in the surgeon but rather more in some "healing salve" which is expected to cause the wound to scab over wthout sacrificing any more tissue. Under such circumstances it is better for the surgeon to refuse to accept the case than to carry out a course of treatment which is against his better judgment, sure to lead to unsatisfactory results but the blame for which the patient will most cheerfully and assiduously cast upon the surgeon.

Case 3. Farm-hand. Index-finger cut off in a feed-cutter at the third phalanx with a shortage of the palmar surface. By the time he reached the surgeon's office he was gloriously, profanely and pugilistically drunk from the effects of the whisky that had been given him by indiscreet friends. His employer having assumed all responsibility in the affair, the nature of the treatment was explained to him and by him consent was given to cut away the dorsal tissues and form a palmar flap from the tissues of the second phalanx. At the first dressing there was much adverse comment, threats to change doctors and to sue for damages; to all of which he was cheerfully told that he could change doctors as suddenly as he chose and could sue and be d——d.

Fig. 22

Fig. 24

Fig. 26

Fig. 28

The patient continued under my care for three weeks, with dressings daily for one week and semiweekly for two weeks, when he was discharged with a useful soreless finger. Some three years later this same man encountered a man with a painful, ulcerated palmar scar on one of his fingers, and he had the temerity and good grace to come to me and acknowledge the wisdom of the form of amputation made in his case and to apologize for his long-enduring "grouch."

Case 4. Circus canvas-man. While engaged with another employee in driving stakes for the big tent, he inadvertantly placed his ring-finger on top of a stake while his fellow swung the heavy sledge hammer upon that same stake top. When seen at the surgeon's office, the terminal phalanx was found to be pulpified.

The parts were cleansed in warm cyanide of mercury solution; the finger-tip was cut off far enough back to give a good palmar flap; the bone was cut off square with a small saw, after dissecting loose a periosteal flap, which latter was laid over the sewn end of the bone; the tendons, which had been cut off long, were brought together over the bone end and sutured with catgut, end to end; the palmar flap was brought into place and sutured. The finger was dusted with bismuth formic iodide, wrapped in several thicknesses of gauze, and firmly dressed by means of strips of zinc-oxide plaster to a short tin palmar finger-splint. He was dismissed with a letter to a surgical friend in the town where the circus made its next stand, and was never heard of again.

Case 5. Blacksmith's helper. Some two weeks prior he had had the end of the middle finger mashed by a hammer blow and had undertaken to heal the injury by home treatment. Investigation showed a necrosed terminal phalanx covered with a mass of crushed soft parts in various stages of granulation and necrosis.

The bone was removed; the soft parts were trimmed up so as to secure the best-possible results in shaping a new finger-tip; the hand was kept in a hot boric-acid solution for twelve hours continuously. The hand then was dried, or rather drained, and dusted with iodoform, dressed in antiseptic gauze and fixed upon a Marsee splint with plaster strips. The finger healed kindly in two weeks, chiefly because of the good general physical condition and excellent habits of the patient.

Fig. 23

Fig. 25

Fig. 27

Fig. 29

Fig 30

Fig. 32

Fig. 34

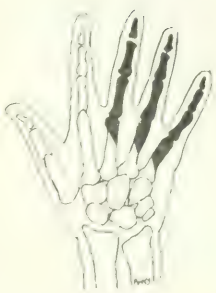


Fig. 36

A few months later the patient returned, seeking relief from a deformed nail growth which interfered with his work. As nothing less than an excision could remedy the untoward result, which was due to leaving some nail-matrix tissue in the original plastic work, the patient decided to trim the nail close, endure the inconvenience and occasional hurting and forego the joys of a secondary operation.

Case 6. Book agent. In her childhood, says this fair maiden, she had suffered some injury which led the surgeon to amputate the little finger at the middle of the first phalanx, leaving a useless stump which always was in the way. By stuffing her glove-finger with cotton, the disfigurement was concealed when away from home. A proposition to remove the stump and the distal half of the corresponding metacarpal bone, thereby eliminating both the disfigurement and inconvenience, was promptly rejected.

Case 7. Express agent. Years previously the man had suffered an amputation of the index-finger at the proximal third of the first phalanx, leaving a stump, which was thinly covered with tissue and in consequence thereof was frequently sore from bruises and in winter suffered from cold. This man cheerfully submitted to an operation for the removal of the stump and the distal half of the corresponding metacarpal bone, a procedure which did away with all previous annoyance and disability.

Case 8. Railway brakeman. In guiding a coupling link into position his hand lingered a trifle too long between the couplers, resulting in a mashed index-finger. An examination showed that only about one-third of the first phalanx could be saved, so, to make a more useful result, one less subject to future damage and more cosmetic, the amputation was made at the middle of the metacarpal bone. The incision for removing the metacarpal bone was made rather to the inner side of the bone so as to bring the scar well upon the dorsal aspect after healing, the excess of soft tissues being so trimmed and shaped as to form a palmar flap large enough to reach up and coapt at the line of incision, thus presenting an unbroken skin surface in the parts subjected to friction, bruises, and so forth. An uneventful recovery followed.

Case 9. Farmer. In driving fence posts, aided and abetted by a muscular farm-hand

Fig. 31

Fig. 33

Fig. 35

Fig. 37

Fig. 38

Fig. 40

who swung a sixteen-bound sledge hammer, his left middle finger carelessly halted on top of a post just as the hammer came down with forceful impact. The second and third phalanges were reduced to useless pulp and the soft parts of the first phalanx were burst open. An amputation was made, leaving a little less than half of the first phalanx as a stump, thus maintaining the normal relations between the thumb and index-finger and conserving the strength of the hand.

Case 10. Band-saw operator. The man's hand came in contact with the moving saw, resulting in the loss of the little finger just at the metacarpophalangeal joint, the section being exactly transverse. In order more easily to remove the distal two-thirds of the metacarpal bone and to facilitate the formation of a palmar flap, an elongated wedge-shaped piece of tissue was deliberately cut out, which procedures permitted the easy coaptation of the parts after the removal of the bone, and did away with the superabundancy of tissue at the site of the knuckle, thus enhancing the cosmetic effect. Usually in cases of amputation of the little finger there follows, in course of time, a shrinkage or atrophy of the hypothenar eminence; but this atrophy is muscular, due to loss of use and not to loss of nutrition, and as there is no such atrophy of the tissues at the knuckle site, unless the excess of these latter tissues is removed at the time of operation, there is apt to be a disproportion of the parts when the atrophy develops, which will mar the cosmetic effect.

Fig. 39

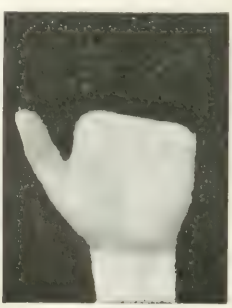


Fig. 41

Case 11. Railroad brakeman. The index- and middle fingers were so badly crushed in the making of a coupling that it was useless to attempt to save any part of either. So amputations were made, including the distal two-thirds of the index metacarpal and the distal one-third of the middle-finger metacarpal. Quite a goodly amount of dorsal tissues was sacrificed to permit of getting a palmar flap which would bring the scar on the back of the hand and also do away with a mass of soft tissues over the bone stumps that would have been a detriment to the hand.

My experience has been that where the pad of soft parts left covering the bones is too bulky, it is apt to become flabby, gets in the way when the hand is using tools, is more subject to bruises, and is more liable to become sore, tender and irritable.

Case 12. Merchant. The bursting of a shotgun barrel lacerated the index- and ring-fingers so badly that amputation was made necessary. The middle finger was patched up and saved. In amputating the index, the distal half of its metacarpal bone and in the case of the ring-finger the distal two-thirds of its metacarpal bone, was removed. By so doing, a better and more cosmetic result was secured and the little finger brought nearly to the thumb, thus increasing the utility of the injured hand. In cutting out the metacarpal bones, that of the index-finger was done as detailed in Case 8 (q. v.), and that of the ring-finger was removed through a dorsal incision *without injuring the palmar tissues*, the oblique section of the bone being effected with a Hey's skull-saw. The bulging of palmar tissues due to bringing the little finger up into opposition with the middle finger was left to nature's care and gradually disappeared as the hand was used in the everyday occupation of the patient.

Case 13. Day laborer. His hand got caught between the ends of two piles of

heavy iron water-pipes which were being pushed together in a trench. The index- and little fingers were crushed so that after two days' expectant treatment it became manifest that they could not survive the injuries. Amputations were made, cutting away the distal half of each corresponding metacarpal bone and using the available palmar tissues for flap formation. Owing to the bruised condition of the tissues, not only of these fingers but of the metacarpus generally, there ensued much inflammation and suppuration and healing was much delayed. Passive and active motion was kept up daily throughout the healing, and it is due to this fact that the tendons were not bound down by adhesions. After six weeks of almost daily attention the man was discharged with a useful hand in which there was good flexion and extension of all remaining fingers.

Case 14. Railroad section man. In handling some old rails one of them slipped from another workman's grasp and the end fell upon this man's hand, mashing the middle and ring-fingers. The man's work was the lowest grade of manual labor where strength rather than skill was the essential, so in order to preserve for him as wide a grasping power as possible, the two fingers were amputated without disturbing their metacarpals further than to remove the palmar knobs from the head.

Case 15. Buzz-sawyer. The man's hand came in contact with the moving saw, which promptly cut off the little and ring-fingers at the knuckle. In trimming up and shaping the parts so as to form a good serviceable hand, the distal two-thirds of the little-finger metacarpal bone and the distal one-third of the ring-finger metacarpal bone were each removed; a rather large V-shaped incision being made on the dorsum for that purpose and the redundant tissues cut away, so that when the parts were healed the hand appeared as shown in Figure 10, with no palmar cicatrix.

Case 16. Railway brakeman. Hand crushed in making a coupling, the ring-finger being the only one which escaped total destruction. In amputating the little finger the distal two-thirds of its metacarpal bone was removed as detailed in Case 10 (q. v.); the index- and middle fingers were removed after the method explained in Case 11 (q. v.).

In the case of quite a few workmen who used tools where the width of the grasp was important, and which width would have been compromised by removing any portion of the middle-finger metacarpal bone, that bone has been left undisturbed except for trimming away the palmar knobs of its head and cutting away the articular cartilage.

Case 17. Molder. In handling some heavy cast-iron cog-wheels, one of them fell upon his hand, crushing the index-, ring- and little fingers, the middle finger escaping unharmed by slipping in between two cogs. In this individual case the man's wages depended upon his ability to lift and handle heavy castings, so the escape of his middle finger was fortunate, that finger being the strongest of the digits. To enhance its strength, or rather not to detract from it, the tendons leading to the amputated fingers were diverted inward and sutured to those leading to the middle finger; a procedure which may not have accomplished any direct benefit but which certainly obviated a waste of energy by preventing the attachment of the tendon ends in a mass of cicatricial or muscular tissues, which would naturally have occurred under the ordinary conditions of healing. Aside from this disposition of the tendons, the amputations were performed as detailed in Cases 10 and 11 (q. v.).

Case 18. Farmer. In working around a threshing machine, his hand was caught in the revolving cog-wheels and the index-, middle, ring- and little fingers were "ground to a pulp." An examination of the hand showed that about half of each first phalanx could be saved, which was accordingly done. Like a great many others of his kind, this man looks upon a prosthetic appliance as an expensive luxury, more of cosmetic than practical value, and refuses to invest in any such paraphernalia. When last seen, some six years after the accident, he was able to handle garden tools, hay-fork, etc., and can milk the cows and do quite a number of similar chores which usually would be considered beyond his ability.

Case 19. Clerk. This man suffered for two or three weeks with a "felon" on the tip of the thumb, which, through the "kindly" treatment of several pernicious friends, had resulted in a necrosis of the bone of the second phalanx and the formation of several sinuses, or "pipes," leading to the suppurative center. The joint between the first and second phalanges was destroyed and there was some doubt as to whether or not the latter bone was infected.

The finger was thoroughly cleansed in cyanide of mercury solution, then held for a few minutes in iodized gasolin, dried by evaporation and wrapped in a thick hot kaolin poultice. This treatment was repeated daily for several days until full antiphlogistic effect was secured, at which time an incision was made, the object of this being to remove the bone without a palmar or lateral cicatrix, to preserve the nail, and to foreshorten the thumb as little as possible. The retention of the nail in a measure maintained the rigidity of the parts, which was greatly reduced by the removal of the bone.

Case 20. Buzz-sawyer. In feeding a small piece of board to the saw, he neglected to take his hand away from the saw and as a result the saw cut away a portion of the thumb "on the bias" with a long palmar stump. The typical operation in this case would have been to cut off the point of the bone far enough back to permit of folding the palmar tissues over, thus securing a palmar flap at the expense of bone tissues only, but at the same time shortening the thumb considerably.

To obviate part of this shortening, in this particular case the remnant of bone was cut through to the periosteum, broken gently and folded back upon itself so as to bring the two sawn surfaces together and giving the bone a rounded stump end. Next a flap of skin with subcutaneous tissues was dissected from the radial side of the back of the hand and sutured in place over the proximal two-thirds of the cut surface on the thumb; the distal third of the cut thumb was folded over so as to cover a portion of the skin flap; this covered portion was shaved of its epithelium and the folded-over distal third of the thumb sutured in place, this interplacing of the skin flap creating a better cushion for the covering of the bone and helping to secure healing without unduly shortening the thumb.

The defect resulting from the dissecting away of the grafted skin was subsequently closed by loosening up the surrounding skin and drawing the edges together, an easily accomplished act because of the natural looseness and elasticity of the skin in that locality. Strict antisepsis was observed, and thanks to the good blood supply of the parts concerned, good union was secured and eventually a serviceable thumb resulted.

Case 21. Railroad brakeman. While running alongside of a moving train the man stumbled and fell with one hand across the rail, the thumb and metacarpal being mashed. It was apparent that the best thing that was to be done was to secure a stump which could be utilized as the basis of a prosthetic appliance. With this end in view the thumb was patched up, to save as much as possible, and the metacarpus was trimmed so as to bring the scar on the dorsal aspect, a procedure which necessitated the cutting of the bones well back and the sacrifice of a small portion of the dorsal soft parts. This gave a stump with quite a little movement; when well seasoned an appliance with claw-like fingers was fitted to it so that the man could thereby grasp and hold a variety of tools and large objects. For Sundays and dress occasions he wore a regulation rubber hand, as described in the works on prosthetics.

Case 22. Lawyer. While telling the story of the big wolf that escaped he neglected to remove his hand from over the muzzle of his shotgun; a sympathetic dog sprung the trigger and a load of buckshot tore away all of the hand but the hypothenar eminence. The shredded remnants were shaped and the hypothenar tissues formed into a flap to cover the carpal stump. Good union was secured, and today, when this man tells his story of the big wolf hunt, his listeners cannot help but admire the beautiful artificial hand with which he gesticulates.

Case 23. Railway brakeman. In carelessly making a coupling his hand was caught and the entire hand from the wrist

down was mashed. After thirty-six hours of hot-water treatment it became apparent that none of the crushed tissues were going to survive their injury, so the hand was amputated through the carpus. The bones were cut off far enough back to permit of a palmar flap being secured, which, with some shreds from the thumb and dorsum, made quite a good covering for the stump. In cutting the bones, care was exercised to preserve intact the periosteum of the portions cut away and this was utilized in covering the sawn ends of the bones.

[For explanation of the pictures shown this month see Dr. Perry's article in the November number of CLINICAL MEDICINE.—ED.]

Symptomatic Treatment of Pulmonary Consumption

By WILLIAM F. WAUGH, A. M., M. D.
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CREOSOTE, as also its derivatives, recommended as germicides, must be given to saturate the system, and hence is useful only with those who can take large quantities with impunity. The best example of massive dosing with this drug was the case of a woman who in time acquired the complexion and odor of a smoked ham.

Gold iodide has been deserted by Shurley and Gibbes, its introducers.

Calomel certainly is useful, in that it clears and disinfects the bowels—urged as a specific probably only by those who fail to appreciate the exceeding value of its true action.

Helenin checks mucous secretion, but further than that is not known to exert any influence to justify the ancient repute of elecampane.

Iodine in all forms stimulates absorption and clears the lymphatics and perivascular spaces of debris that hinders the free egress of the phagocytes. It also stimulates the bronchial secretion and must be used with care if there is a tendency to hemoptysis.

Iodoform allays gastric and respiratory irritation, soothes cough, and, being eliminated through the lungs, is believed to exert a slight germicidal power.

Copper phosphate was Luton's suggestion as a specific. Like many others it never was fairly tried out. The antimycotic powers of copper justify a trial.

Potassium cantharidate is another suggestion of unsettled value. Inducing local edema, as it does, could it be utilized?

The cyanide of gold and potassium, mercury cyanide, and mercury thymolacetate, each recommended, and neither proved nor disproved but remaining to distract the attention of the practician who does not like to neglect any possibility for good.

Calcium Sulphide Most Promising

The most promising agent as a bactericide appears to be calcium sulphide. If it is pushed to saturation and thus sustained for two weeks, can the tubercle bacillus survive? It is harmless to the patient, at any rate, and certainly combats the organisms inducing suppuration.

Aconitine is always indicated for the fever, over which it exerts full control without depriving the patient of a single red blood-corpuscle.

Digitalin should always be associated with aconitine; the pair being especially effective in allaying the fever and preventing sweats.

Fever not controllable by aconitine and digitalin always means fecal or bacterial toxemia; or else an extensive invasion of new territory by the bacilli, such as appears in acute or galloping phthisis. Clear the bowels, disinfect them, and apply cold compresses over the abdomen, changed every

minute, for half an hour out of each two hours until the fever falls below 103° F.

Eucalyptol, menthol, myrtol, thymol, all are useful antiseptics for fetid sputa (also for diarrhea), checking a too free flow of respiratory secretions.

Codeine Best for Cough

Codeine is the most effective agent to allay cough when more than needed for clearing the lungs; for fever, flushing and cerebral fulness from overexertion or nervousness; but only to be used occasionally and when other remedies fail, since its use lessens vital resistance. To him who knows codeine there is no place for morphine in the management of consumption.

Creosote checks redundant mucous secretion, corrects fetor of sputa, restrains sweating; in small doses it has been known to relieve the anorexia, dyspepsia, cough and fever that come from gastrointestinal toxins.

Apocynin tones relaxed vascular tension and stimulates lymphatic a sorption of waste.

Aspidospermine is the remedy for dyspnea when of spasmodic type.

Glonoin relaxes respiratory spasm, checks hemorrhage, and relieves cerebral anemia and its consequence—syncope.

Calcium lactophosphate is the remedy for colliquative sweating, diarrhea, bronchorrhea, and hemorrhages, acting by restoring strength to fragile vessel-walls. It acts slowly, and should be administered for months in full doses.

Macrotin palliates cough, improves the appetite, tends to cure bronchitis, relieves nervous phenomena, and steadies the heart.

Arsenic and Its Combinations

Burggraeve believed that persons saturated with arsenic were impervious to attacks of tuberculosis. It is certain that arsenic may protect the red blood-corpuscles from the attack of other maladies as well as of malaria.

Arsenous acid in small doses corrects gastric and intestinal irritations and improves the digestion.

Arsenic iodide is a powerful stimulant of the absorbents, and useful whenever debris encumber the tissues and impedes the leukocytes.

Quinine arsenate is especially useful as a tonic when fever or hectic is present.

Iron arsenate is a good hematic tonic when fever is absent. It is well tolerated when other chalybeates are not.

Strychnine arsenate is a very valuable stimulant tonic, energizing any other remedy given simultaneously, especially in asthenic febrile states in connection with aconitine and digitalin.

Barium chloride has been warmly recommended in the cheesy forms of phthisis, and as a heart tonic.

Sanguinarine is *the* remedy when secretions accumulate, the sensibility of the pulmonary tissues is dulled, and the patient must cough harder to clear out the retained sputa. It is tonic to the pulmonary tissues and also promotes the appetite.

Corrosive sublimate in minute doses is an excellent remedy for the diarrheas of the tuberculous.

Emetin is the most effective remedy to loosen dry coughs, start up digestive secretions, and to aid in checking fever and hemorrhages.

Atropine is the one only remedy for pulmonary hemorrhages, surely stopping every form, except that due to erosion of a large artery by rapidly advancing ulceration.

Cactin is useful for irregular heart action, relaxes vascular and emotional tension, and had a reputation for checking hemorrhage long before its power of relaxing vascular tension was known.

Cannabis is an efficient sedative for cough, and is preferable to all opiates as it does not disorder digestion or lock up toxins in the system.

Euonymin is a useful cholagog and laxative, stimulating digestive secretions without weakening.

Juglandin is a laxative tonic closely resembling rhubarb. It stimulates all the digestive secretions and tones the intestinal musculature.

Iron iodide is sometimes indicated for the strumous anemic pretuberculous.

For Diarrhea in the Tuberculous

Colliquative diarrheas are checked quickly by atropiné, doing service until calcium

lactophosphate has had time to strengthen the cell-walls.

Copper sulphocarbolate is worth a trial for diarrheas and gastrointestinal mycoses.

Calcium sulphocarbolate is the remedy to disinfect the bowel after emptying it of its putrid contents.

Most "tuberculous" diarrheas disappear promptly when the bowel is emptied and calcium sulphocarbolate is then given, say, 40 grains a day.

Real tuberculous diarrheas are quickly relieved by cotoin—which helps in no other form of diarrhea.

The oxides of silver and of zinc are useful for chronic diarrheas with relaxation or ulceration, also for all colliquative discharges.

Most former remedies for diarrhea have fallen into disuse since zinc sulphocarbolate has come into general use.

Lycopin is believed to control pulmonary hemorrhages by directly stimulating the vasocontractors of the pulmonary circulation, for early hemoptysis, cough, sweating, diarrhea, and anorexia.

Benzoic acid corrects fetid sputa, checking redundant expectoration.

Iodized calcium is of value in strumous cases and to check beginning acute catarrhal attacks; also to relax spasm and allay croupal intercurrents.

Treatment of Night Sweats

Picrotoxin checks sweats and is useful for the laryngeal implication.

Agaricin stands at the head of remedies for night sweats, after the bowels have been cleansed and the fever is under control.

Hydrastine contracts the smaller blood-vessels and is useful for hemoptysis, besides being a fine intestinal tonic.

Atropine is the quickest and surest remedy for hemorrhage or for sweating. Full doses are required.

Euarol, used with an oil atomizer, is very useful in clearing out the pulmonary tract, relieving irritation, and temporarily protecting the sensitive tissues against cold and dust.

Nuclein, intravenously or subcutaneously, is one of the most promising remedies for pulmonary phthisis now before the profession.

The symptomatic treatment means the use of exactly the right remedy for every symptom that calls for treatment, at the right time, pushed to the right point.

A proper regimen—adjustment of climate, exposure, exercise, diet, rest, recreation, clothing when combined with the proper symptomatic treatment, affords results that would not have been thought possible a few years ago.

Every case requires individual study. There will never be found a "specific" for tuberculosis, applicable alike to all cases and not requiring, in aid, additional treatment.

The care of a physician who understands the patient is worth more than any climate or system of treatment.

IT is about time that the medical profession gave more attention to the "flowers and fruits in the garden" and less to the "weeds." Hypercriticism, denunciation and ill-gendered feelings have warped us, injured us, and held us back long enough. We must grow more kind to each other, more tolerant of each other's mistakes, shortcomings and frailties, and present a more tangible brotherhood, or the common foes of scientific medicine—ignorance, charlantry and faddism—will invade in still greater hordes the field that legimately belongs to us.

—American Medicine

"Confessions of a Booze Fighter"

By DAVID GIBSON, Cleveland, Ohio

EDITORIAL NOTE.—David Gibson is not a physician, but a former newspaper writer who attracted national attention some four years ago by his very human treatment of certain social and economic questions, in a little advertising magazine of his own. This magazine has developed into a series of "house organs", all under Mr. Gibson's charge. In these magazines Mr. Gibson preaches business honesty—the same ethics in commerce that is demanded within the medical profession. His philosophy is well expressed in the following epigram: "What we need is less complex cure-alls and more common honesty." Mr. Gibson also finds time to write the material for "The Neighbor", a little magazine issued to employer and employed, from which this article is reprinted, with his consent.

THIS temperance wave that has been rolling over the country in the past few years is economical rather than moral.

It is intellectual rather than emotional.

Obviously the emotionalists, the long-haired men and short-haired women, who are in it as a matter of morals, have undoubtedly helped some but by comparison with the economist, the intellectual, they are a good deal like the fly on the elephant's neck who had just pulled a load of mahogany logs up a hill, and which exclaimed on reaching the summit: "Well, we've had a long pull!"

When a manufacturer of Muncie, Indiana, whom the writer knows, puts up $40,000 *of his personal funds and hires the best practical politician in the state to vote the town dry, you can be pretty well assured that there is going to be something doing in the way of* 10*-percent dividends very soon.*

When you pay off a bunch of men on Tuesday and ten percent of them do not show up next day, both you and the men soon realize the frightful cost. Not alone the cost of the booze direct, but the fact that it incapacitates men for production.

Take a bunch of tool makers, or a bunch of printers, and the best man among them, the best actual ability is a booze fighter, and his brain and hands are out of commission at a critical time. As a result, a man of really less ability takes his place.

Sober men are taking the places of boozers everywhere, just like the scientific salesman has taken the place of goodfellowship salesman—it is purely a question of economy.

The favorite argument of the "wets" is this: When you close the saloon you open the speak-easy; you close the opportunity for drinking light alcoholic beverages and render only the higher and inferior spirituous liquors available.

This is all true enough, but—

You only open the speak-easy to this generation of drinkers.

With the saloon out of existence, you take the saloon attitude away that educates each generation of drinkers.

The very existence of a saloon is an advertisement to educate drinkers.

Youth is venturesome and curious. They see men drinking and they want to test the effect. The curiosity of ignorance leads many a young person into the habit and disease of drink.

If you print the effect of a certain narcotic in a newspaper, you will have several people trying the drug to see if it is really so.

A saloon is just like any other business in this respect, that it creates business within and by itself. That's why most stores have show-cases and show-windows. A saloon creates business on this same principle, but—*a saloon is not a legitimate business.*

It is a negative rather than a positive influence. *It is destructive rather than productive.*

While the writer has been a teetotaler for a good many years, yet in his time he has helped open a few saloons in the morning and participated at some closings at night, and we will take his case to show how the average boy learns to drink and gets the drink habit.

In a small town the livery stable, where the race-horse touts, swipes and rail-birds gather in winter, is always attractive to a

boy. These become his ideals in a way. He is anxious to enter their good graces, and soon performs little offices for them, the principal one of which is "rushing the can." He says to himself that this stuff must be good, from the way these fellows go at it, and when the can is passed around the stove in the office at the corner of the stable, he takes his turn. He doesn't like it—it's bitter; but still there must be something in it that he has not found, for old John Day, the stable foreman, he gets drunk, and so does Ben Hoey, one of the swipes. After considering that it must be his own fault instead of the beer, he keeps at it until he really likes it.

Then with a few of the other kids he begins to rush the can on his own private account. He hears a big story about all the touts and swipes and livery-stable chambermaids generally getting on a big drunk the night before—how they started in at Charley Polster's saloon and ended up at Pete Snitzel's, and, obviously, the fellow who is telling it was the soberest of the crowd. Then his curiosity is awakened as to the other phase of drinking—the effect. He gets out with the kids some night and drinks as much as he can conveniently hold, and acts a good deal more drunk than he really is.

Then he hears stories about capacity drinking—of Ed. Wurgler, the toughest "bub" about the stable, going to a German party and drinking twenty-five glasses of beer; which number is usually beyond the ability of the average country follower of the track to buy out of season, so he must be favored where it is free. He has no opportunity to try this, neither has he the capacity, but still it remains an ideal of his.

He finds some booze bottles hid around over the stable, drains one or two of them. Doesn't like the stuff, burns his tongue and gags him; but still there must be something about it, or why should men drink it?

A few years roll around, he has changed his environment and for a time his sense grows faster than his appetite. He gets a job in an office, notices that his boss drinks, so does the next man to the boss, and he doesn't see that it is putting them down and out. He drinks occasionally and even gets out in a crowd and gets "tanked" now and again. He is sick next day, and either lays off or gets through work as best he can.

A few more years. He grows and his job grows, and he is drinking more as he earns more. The night "busts" become more frequent, but he has found a way of treating the "next-morning effects" by taking an early "bracer"—before breakfast.

Here at this point the nerve-tissues are fast becoming destroyed. There is a constant craving for a stimulant. He, in time, becomes a steady drinker, with a route of about so many saloons at certain times in the day and goes around smelling like a gas leak. Or according to nerve-temper, he may become a periodical drinker—where he must lay off for a week and simply drinks till his stomach quits. He doesn't quit, his stomach quits.

Obviously, if a man is young when he arrives at this point and his ambitions are stronger than his appetite, there is hope for him. By having a talk with himself, changing his line of work, moving off to another environment and changing the whole key of life in which he has been playing, he becomes another man, save in name and body.

These few brief "Confessions of a Booze Fighter" would not be printed if the circulation of this magazine were not among mature men; for if the readers were young they would only serve as curiosity awakeners —as a curiosity alarm-clock. But—

They will serve the purpose of illustrating the fact that one generation of drinkers educates the next.

While you will open the speak-easy by closing the saloon, and all that, yet you do not give it a chance to exist openly and advertise itself openly as in the case of the corner saloon.

Supposing you are not a drinking man. You are down town occasionally at night. You resolve to take the very next car home. In going past a restaurant on the way to your car you observe that it is well lighted, clean and beautifully decorated; people are sitting at the tables eating and you even get a whiff of some of the good things on the bill—possibly there is an orchestra playing.

Now, this restaurant keeper doesn't know what the word psychology means, yet he has

applied the science. He has appealed to your every sense in order to get you into his place—that of thinking, seeing, tasting and hearing. Instead of going directly home, as you had intended, you go in, eat a good meal and spend some of your money.

The same would be true if you were an occasional drinker and this restaurant were a saloon.

A saloonkeeper is a merchant the same as a restaurant keeper or any other storekeeper, and he seeks and creates business in the same way.

The saloonkeeper is more frequently a decent fellow than otherwise; attracting and creating business becomes second nature to him, as in the case of the rest of us. Like us, he knows his business perfectly in relation to itself, but the saloonkeeper does not know that his institution is a menace to other industries and commercial pursuits; because he appeals to a weakness rather than a strength.

The saloonkeeper is individually not to blame; for he is there in the supply of a demand, and he is voted out of business and his property practically confiscated, just as in the case of the slaves of the South. While slave trade was an unscientific business, as the saloon business is unscientific, unnatural, yet it is all the business they have, and there should be some way of compensating the loss.

The temperance wave that has been going over this country is just the tendency to the efficient adjustment of industry and commerce and is the result of straight, scientific thinking.

That there is less drinking among men can be seen everywhere. Down in New York City there is a noon-lunch club on the top floor of the Postal Telegraph Building, opposite City Hall Park, known as the Hardware Club. It is patronized by the business men in the jobbing and other trades in that section of the city. Ten years ago if you would look around over the big dining room, seating possibly two hundred persons, you could have seen a highball at every plate. The other day the writer was in there at the noon hour and there were not six drinks in the room.

Most of the table glassware of the country is sold to jobbers and big retailers by the manufacturers holding an exhibit twice a year at Pittsburg, and all the buyers in the trade gather there at these times. Most of the furniture is sold in the same way by the manufacturers holding exhibits at Grand Rapids, Michigan. Each one of these meetings meant a big drunk a few years ago. There was a portable bar in every booth, and salesmanship depended upon a man's capacity to carry a load. But this s no more. The exhibits are still held, but all the tank salesmen are either dead or out of business or quit drinking. The goods are sold purely on merit, and drinking among the buyers and sellers is the exception.

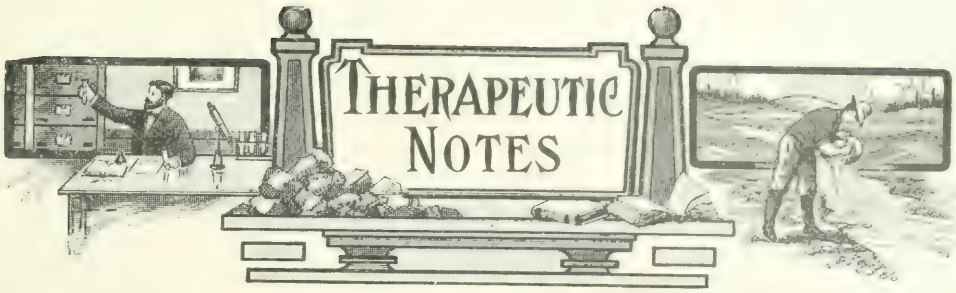
The fact that alcohol has no internal value to man has been scientifically proven. It isn't even a stimulant—it is paralyzing in its effect.

Some months ago, at Johns Hopkins University in Baltimore, a test was made by taking ten men in a normal state and having them do small examples in arithmetic, at finding a certain word in a dictionary, and other minor mental feats. An accurate account was kept of the time required by each individual of the ten, and which was afterward averaged. Then each was given an ounce of whisky and the same examples of a like character to do. After a long series of average tests it was found that under the effects of alcohol in the system the speed was not only reduced, but the error account increased.

This all goes to show that while drinking may not always get a man down, yet it is a negative quality which is keeping him stationary.

There may be successful men who are heavy drinkers; yet they are successful in spite of it rather than by reason of it. The men who can drink and be successful are so rare in strength of character as to make them an unsafe precedent in considering the average man.

It isn't the actual cost of booze itself, but rather its cost in rendering men less efficient to produce, and this is not a moral consideration.



TANNIN FOR DISINFECTING THE HANDS

A novel method of disinfecting the hands, recommended by Zablondovsky of Moscow (see *Therapeutic Medicine*, June, 1910) is to rub them well with sterilized gauze soaked in a 5-percent solution of tannic acid in alcohol. It is said that it makes no difference whether the hands be previously washed with soap or whether they are wet or dry. The disinfection remains effective for some time, and is not altered by contact with liquids nor by movements or friction. After application of this solution to the hands they become smooth and soft, as if they had been polished.

This method has the advantages of being cheap, simple, very effective, and the materials are always at hand. It is especially adapted for emergency work. While seemingly almost too simple to be effective, yet, the method has been tried out by Dr. Biehn in our own laboratory and bacteriologic tests made by him confirm the claims. Cultures taken from the hands five minutes after disinfection were found to be still sterile.

FORMIN USEFUL IN "RUNNING" EARS

Dr. W. M. Barton has discovered that hexamethylenetetramin (formin or urotropin) is excreted by the middle-ear. This fact has been taken advantage of clinically at the Children's Clinic at Georgetown University Hospital, Washington, in the treatment of about a score of children suffering from chronic ear infections; good results having been obtained in all of the cases. One child which had an offensive discharge from the ear for about a year, and had been treated in the usual way by irrigations, etc., without benefit, was given formin, and in a short time the child was apparently cured. We commend this suggestion to the readers of CLINICAL MEDICINE. Try it out and report.

EFFECT OF STROPHANTHIN ON BLOOD PRESSURE?

Recent investigations by Straub, published in the *Therapeutische Monatshefte*, seems to indicate that strophanthus, unlike digitalis, does not increase the blood pressure. According to Bailey, crystalline strophanthin is a valuable cardiac stimulant when compensation is broken from any cardiac disease, but it is not suited for continuous use and should be reserved for emergencies. He advises that it be given intramuscularly or intravenously, dissolved in salt solution.

MAGNESIUM-SULPHATE INJECTIONS IN TETANUS

L. Phillips (Proc. Royal Soc. Med., Feb., 1910, through *The Prescriber*, Aug., 1910, No. 47) treated seven cases of tetanus by means of intraspinal injections of magnesium sulphate, four of whom recovered and three died. The following is the technic:

A 25-percent solution of the salt is carefully sterilized and injected into the lumbar region in the ordinary way, first allowing a little cerebrospinal fluid to escape. One cubic centimeter of the solution is injected for every 25 pounds of body-weight: which means about 5 to 6 Cc. for an adult, and 2 to 3 Cc. for a child. It is as well to prop the patient up to prevent extension of the fluid to the medulla, and consequent respiratory failure.

The result of the injection generally is flaccidity of the lower limbs and of the abdominal muscles, and often slight diminution of the trismus, the patient feeling more comfortable, and sleep also often ensuing. In acute cases the injection may be repeated in twenty-four hours, but the interval depends largely on the return or otherwise of the spasms. Details are given of the cases and a résumé of the literature on the subject is appended. Further reference will be found in *The Prescriber*, 1910, p. 90.

INJURIOUS EFFECT OF PHYSIOLOGIC SALT SOLUTION

The assertion of Roessle that physiologic salt solution is by no means an entirely indifferent fluid for the tissues of the body caused Hans Hoessli (*Ther. Monatsh.*, Aug., 1910) to institute experiments of his own.

Hoessli injected into the peritoneal cavity of cavies salt solutions of from 0.9 to 0.92 percent strength, of a temperature of 38° to 40° C. The amounts injected were from one-eighth to one-sixth of the body-weight of the animals. After six or seven hours fats and lipoid globules may be seen in the cells of heart and kidneys. These alterations in the cells obtain their maximum within twenty-four hours and have disappeared after forty-eight hours. The essential effect of the solution appears to be produced by the sodium ions.

INFLUENCE OF GELATIN ON THE COAGULABILITY OF BLOOD

J. Renar (review in *Ther. Monatsh.*, Aug., 1910) puts the blame for the many contradictory reports concerning the therapeutic importance and value of gelatin upon the occasional employment of improper specimens of gelatin, and especially the fact that they are frequently overheated.

Renar finds that the coagulability of the blood invariably is increased by intravenous injections of gelatin. The percentage in the blood of calcium salts and of fibrinogen shows no definite changes. The fibrinferment content continues augmented for a considerable period. Immediately after the injection the number of white blood-cells is strikingly reduced, this, in many cases, being soon followed by a hyperleukocytosis.

VARIABILITY OF DIGITALIS

Edmunds and Hale ("Bulletin No. 48" of the U. S. Hygienic Laboratory) have made a careful study of different liquid preparations of digitalis as found in commerce, employing a biologic method of assay, the frog mainly being the test-animal. They found a wide variation in the strength of these preparations, stating that a difference of as much as 400 percent may be expected at times in different specimens of the drug. Need we moralize?

INTRAVENOUS INJECTIONS OF MAGNESIUM SULPHATE IN PUERPERAL INFECTION

Dr. R. R. Huggins (*Surgery, Gynecology and Obstetrics*, June, 1910) says that for some months he has been using magnesium sulphate in the treatment of puerperal infections. Experiments both with animals and on man have demonstrated, he says, that the administration, intravenously, of this salt is safe and that it is a valuable therapeutic agent in the treatment of infection when given in this manner.

When indicated, this treatment is supplemented by a continuous intrauterine irrigation of a solution of the same salt. The author describes a case of puerperal bacteremia after abortion, which was treated successfully by this method.

MAGNESIUM SALTS IN THYROID INSUFFICIENCY

Corrado of Genoa (review in *Therap. Monatsh.*, July, 1910) has attempted to discover means for overcoming the danger of tetanus after thyroidectomy. In his experiments on thyroidectomized dogs he injected isomeric solutions of magnesium sulphate and of magnesium chloride in large doses, giving 0.5 to 2.0 Grams of the drugs per kilogram-weight subcutaneously. By this method he succeeded in removing even the most severe tetanic conditions in the animals, which survived the operation longer than the

untreated thyroidectomized animals, while they appeared to be insensible to the toxic effects of the magnesium salts.

The therapeutic value of magnesium in this condition consists, then, in suppressing remarkably the attacks of tetanus, in influencing favorably the tetanic symptoms, and in securing a favorable course of the affection. Even though the animals finally perish, the magnesium salts have proved a valuable means of tiding over the critical period of thyroid insufficiency until the remaining parathyroids can function or until in other ways the trouble can be controlled.

This is only one of the many instances where animal experimentation, which is now so vilified, has proved of inestimable value in enabling us to save lives which would otherwise be doomed.

REPORTING CASES: A SUGGESTION

The editor of *The Medical Times* suggests that many cases offering valuable clinical lessons are not reported because the experiences separately are scattered among many men. If we could arrange, he says further, with groups of observers to collate their experience in similar cases, we could profit by the results of these collective observations. It might be a good idea if groups of physicians were to organize to collate cases of special diseases, deciding the chief points to be noted in their clinical reports. In this way statistics of considerable value could be created.

SUGAR AS A CORRECTIVE IN PRESCRIPTIONS

L. Sabbatani (review in *Ther. Monatsh.*, July, 1910) has determined experimentally that sugar increases considerably the internal friction in fluids and therefore interferes with the molecular motion in the same, thus retarding and even impeding the occurrence of many reactions.

The author has examined particularly the impeding effect of sugar upon coagulation of albumen and shows that the viscosity of syrup may also influence the action of medicines. Sugar is especially useful in diminishing the irritating or caustic action of many remedies. Gum arabic, salep and other mucilaginous substances have the same effect, but sugar is preferable in that it tastes better and also is borne better.

GALEGOL AS A GALACTAGOG

Dr. Scherer of Prague (review in *Ther. Monatsh.*, July, 1910) has found that galegol, an extract of galega officinalis, administered to nursing women, a teaspoonful in four ounces of milk three times a day, has proved a reliable, harmless remedy to increase the secretion of milk. He used it, with satisfactory results, in sixty cases.

ALTERNATION OF CATHARTICS

According to a writer in *The Medical Summary* (July, 1910), no one particular cathartic should be continued for any prolonged period. The intestinal tract, in time, grows habituated to a given stimulus, with a resulting lack of tone. Nerve obtundity ensues and the drug must be run up in ever-increasing doses. It is bad practice to continue indefinitely medicines containing aloes, which latter exerts its effects upon the lower intestine. Strychnine acts upon the muscular structure of the intestines and in time its beneficial effects are lost. Salines act on the mucous membranes, increasing the watery constituent, thus favoring loose stools. Castor oil acts somewhat in the same way, besides dissolving scybala. Calomel increases peristalsis by acting upon the glands of the intestines and by irritating the mucosa.

Thus it is evident, the writer continues, that there should be a judicious rotation of cathartic medication if such remedies must be employed at all. The only exception to this rule are the cascara products. Cascara, so far, is about the only drug agency known that has any semblance of curing chronic constipation.

PHOSPHORUS AND COD LIVER OIL IN RICKETS

Dr. J. A. Schabad claims to have demonstrated (*Therapeutic Medicine*, June, 1910) that phosphorus alone is not beneficial in

rachitis, but, on the contrary, injurious. Oil of sesame, which has been recommended as a substitute for codliver oil, has no value. The best combination is a solution of phosphorus in codliver oil. In this the author corroborates Kassovitz's clinical findings. Why this combination should operate better than codliver oil alone, bearing in mind that phosphorus alone is injurious, has not been explained, but such seems to be the fact.

CAMPHORIC ACID FOR THE SWEATS OF TUBERCULOSIS

E. Levi (*Gaz. degli. Ospedali*, through *J. A. M. A.*) reports twenty cases to demonstrate the efficacy of camphoric acid in the treatment of the sweats in phthisis. He gives 2 Grams (30 grains) in two doses during the day or evening, and has found it effectual when all other measures had failed to relieve. The sweats are due, probably, to a number of factors acting on the centers of respiration and transpiration, and the camphoric acid seems to influence both, being at the same time well borne and causing no toxic symptoms. He kept up this treatment until the sweats disappeared.

Dr. Levi further states that camphorated alcohol rubbed into the skin also is useful in aiding the effect of other drugs, but much less than the camphoric acid given as above.

PHARMACOLOGY AND THE CLINIC

The importance of regulating the dose of drugs according to clinical condition is aptly discussed in an editorial, which appeared in the August number of *The Journal of the American Medical Association*. Thus, the writer says that the fact that clinicians sometimes fail to obtain, at the bedside, results which laboratory observations might lead them to expect has been attributed to the difference in the behavior of drugs in the normal and diseased organism. Both pathology and pharmacology teach that, in many instances, this difference in reaction of a given organism, when not associated with actual destructive changes, is a mere matter of variation in irritability.

The problem of treatment, then, becomes a matter of dosage. In a case of intestinal colic, in which the clinician was inclined to condemn the use of the usual 1-milligram (gr. 1-67) dose of atropine because of the development of toxic symptoms, the dose was reduced to the unusually minute amount of 1-2 of a milligram (gr. 1-134). In this manner not only were the toxic symptoms eliminated but the desired therapeutic result was obtained. Just as in lead-poisoning the presence of the lead renders the intestine so much more irritable that a given dose of atropine that would have very little demonstrable effect on the normal intestine can relieve the symptoms, so here, the intestine has been rendered so irritable as to react to a minute dose.

PANTOPON AND THE MORPHINE-HABIT

In a letter to *The Lancet* Oscar Jennings speaks of a preparation recently introduced in France known as pantopon. This represents the totality of the alkaloids of opium without the inert ingredients. Dr. Jennings suggests that an important step in the treatment of the morphine-habit is the substitution of this pantopon for morphine itself. The next step is the use of a pantopon from which the morphine has been removed, and the third, one in which all of the alkaloids are eliminated, except those constituting the meconaric group. In this way opium itself is made the agent for the liberation of its victim from his bondage.

GELATIN IN DIARRHEA

Weil, Lumière and Pehn claim that the diarrhea in infants yields more rapidly and safely to gelatin than to preparations of bismuth or tannin. They gave gelatin by mouth. Von Aldor, who cites them (*Therap. Monatsh.*, April, 1910), recommends high enemas of a 10-percent gelatin solution in Carlsbad water.

But why all this trouble? Members of the "family" know that the simplest, most rational way to treat diarrhea in infants is (1) to clean the bowel out thoroughly, if necessary using colonic lavage, as well as suitable laxatives, and (2) to administer the intestinal antiseptics.

The Need of Studying Senility

VI

Why then do living beings die?

You have read with interest the historic exposition which Sabatier gives of the question in the pages of his book, from which I have borrowed already. I shall try to give you a resumé of this author's opinions, which appear to give a satisfactory explanation of senescence and death.

Living matter, taken in its greatest simplicity, shows its vitality in its strong power of allurement (attraction), which assures a constant and proportioned repair in the living mass. It has but a restricted field in which to manifest its existence, its power of allurement and its instability. But when we have to consider this living matter as having acquired by a differentiation from the mass a little higher degree of perfection the relations become changed. All differentiation and all specialization of living matter determine, as a first result, the moving away from the primitive type and a modification of the primary functions. With a higher quality of function there must be a less quantity of functional power, and, continuing in the domain of biology, we find, also, that the quality of the vital power is in inverse ratio to the quantity of the function, so that the energies are so much the more intense in proportion as they are less differentiated.

It may be conceived that potential immortality might have existed in the world. It was vested not in the protoplasm which we know today but in primitive protoplasm. This protoplasm could, as Haeckel would have it, present such a lack of differentiation that it would have neither form nor limitation of dimensions. This is the primitive jelly of Oken. The first step in specialization is made when this jelly fragmentizes itself, while still remaining homogenous. Furthermore, the intimate structure of these fragments holds in reserve two quite distinct classes of beings, unicellular beings and beings of many cells, or metazoan. Differentiation in the first class is accomplished by means of a nucleus, and the nucleus which varies most from the form of primitive life is just the one whose decadence shows itself first.

In the metazoans difference in form is observed at the beginning; some cells differentiate utterly, form diverse tissues and die; while other cells maintain, as Sabatier expresses it, "a conservative silence;" they remain the same that they were before and preserve intact their power of alluring which enables them to perpetuate themselves. These are the reproducing cells. These reproducing cells were already foreseen by Weissmann; however, he could not explain them satisfactorily. Buetschli essayed to do so, finding that the infusoria on the road of decadence are able to regain new powers—may be said, in a word, to rejuvenate themselves by the phenomenon to which the name conjugation was given. Buetschli argues that the fecundation of the metazoans is of the same order, thus the egg, the reproductive female-cell, the only one capable of rejuvenation, is revitalized by the spermatozoid, the reproductive male cell, the only one capable of rejuvenating it. These ideas have been reinvested with scientific precision by the labors of Koehler in the *Revue Gen. des Sciences*, August, 1892. We shall

have a further proof of the part which differentiation plays in the evolution of primitive connective tissue.

We see therefore that the more the elements differentiate themselves with the purpose of constituting so many isolated individuals within one individual, in order to have a better-determined specialization, so much the more does the *power* of the elements diminish, because they can no longer live on themselves and must needs depend for sustenance on the collectivity to which they belong. The elements find, therefore, that their *instability* and their *power of alluring*, these two primordial characteristics of living matter, have diminished; they are in a state of general inferiority on this account; they have become mechanisms, and like every mechanism they become exhausted and are worn out by their own functionizing; and so they are condemned to senescence and death. Read in this respect the memoirs of Delboeuf, "La Matiere Brute et la Matiere Vivante ("Crude Matter and Living Matter") and you will see how this author sustains this theory of senescence and death by differentiation and specialization of functions—which might be termed "the physiologic theory." In another more recent memoir the same author, Delboeuf, in the *Revue Philosoph.*, 1891, under the title "Pourquoi Mourons-Nous?" (Why do we die?) discards his former theory and falls back on pure philosophy.

However, you may find satisfactory enough teaching in this likeness to a machine that wears itself out—yet this is the most current explanation of senility. Is it sufficient? Is it not necessary to dig somewhat deeper into the problem? Looking more closely at this explanation it does not give more than a part of the solution we are in search of. For though we may readily admit that differentiation is accompanied by a diminution of alluring power and hence by a diminution of resisting power, and if the complication of a mechanism does involve fragility, yet are we obliged to acknowledge that alongside with the machine that uses itself up there is also the machine that is made for the purpose of repair, and we are in search of an explanation of the reason why the repair of parts that are liable to crumble and be annihilated is made so very incompletely.

That explanation might possibly be found sooner in a differentiation that is pushed to its extreme limit, rather than in the idea of wear and tear by the work of functionizing. So long as differentiation in the living matter was but feeble so long did the non-differentiated part conserve sufficiently its alluring power for the repair of the losses sustained in the work of differentiation. But little by little the cell lost its general function and has become a special agent and more and more a cell of a specially determinated function, as a nerve cell or a muscle cell, and the like. At every step in the perfecting of specialization the cell loses a part of its reparative power because it loses more and more of its alluring power, so that when it arrives at the highest degree of differentiation there is almost nothing left of its primitive element. So it is then when a localized traumatism occurs the lacerated elements of the affected parts have not power enough to reconstruct themselves and the result is the formation of a cicatrix. This is what we observe in nerve centers: When there happens to be a rent there the nerve cell, which is very much differentiated compared with its primitive element, is no longer able to produce its own nerve tissue and connective tissue must replace it.

Now you know that connective tissue is made up of elements that have no very definite characteristics. This is a less differentiated tissue, but it is at the same time a tissue that presents a higher power of alluring (attracting), and it is on this account that in the cicatrix it replaces tissues that are highly differentiated and incapable of regenerating themselves. For the reason that connective tissue is less differentiated we see it taking little by little the place of noble cells which were used up in their functioning or which were put out of condition accidentally, in consequence of their special adaptation. It is to this observed biologic fact that we shall revert and upon this we shall rely when we come to study together the anatomic modifications which senility presents to our notice. This evolution of connective tissue justifies Charcot's phrase in the first of his lectures on the "Diseases of Old Age"

(Charcot, "Maladies des Vieillards"), where he says: "The changes of texture which old age impresses on the organism show themselves at times to such a degree that the physiological and the pathological states resemble each other so much that they may be confounded because of their insensible transitions, and it becomes impossible to distinguish them clearly."

Such are the facts which I recall briefly in order to answer the double question: How does living matter die, and when does it die? It dies in consequence of its differentiation and its specialization, which have the effect of displacing its two fundamental properties, i. e., its alluring power and instability, by a specialized functioning. It dies then when its power of alluring is so enfeebled that its differentiated, specialized elements have exhausted their coefficient of resistance, which is not illimitable because the differentiated element is unable to remake or regenerate itself. Senescence is precisely the period during which the element lives on its reserve fund; it begins from the time when the element has arrived at the highest degree of differentiation, and ends the moment when it no longer is sufficient for itself.

These general biologic notions we have to apply in the study of the human being who presents us a precise type of a highly organized individual in a very advanced state of differentiation.

Let us extend now the idea of alluring power and let us apply it to every one of the organs that constitute the organism.

The cells in the first days of their embryonic life, when they are hardly yet differentiated, enjoy to a high degree alluring power and instability. But, little by little, differentiations are established and specializations develop. At the same time, and proportionately, there is to be noticed a loss of instability and a diminution of the alluring power, and very soon definite cell groupings take place. The cells are no more characterized by intensity of life, but rather by a more limited life, because such a cell has no more to do than exhibit contractility or sensibility or to elaborate this or that secretion, to the exclusion of all other functions. From these groupings are born the nerve centers, the hepatic masses, tissues of narrow life and restrained duration, because they have lost the faculty of self-remaking. The organs have a definite function and for a limited time, because their resistance is proportional to the diminution of their alluring power, which power itself is in inverse proportion to the degree of differentiation. Every organ has therefore its function diminished in intensity as it exhausts its coefficient of resistance, which it possessed at the moment when its differentiation become the most perfect and this coefficient can not be renewed. The totality of these organic losses gives, as a resultant, a diminution of the intensity of functional life, and this is senility.

A second question presents itself here: Senescence and senility being functions of the loss of alluring power and of cell-differentiation they ought then to begin at the same period in every group of cells and in all individuals, and yet they do appear at a different age with every individual. This is certainly because the alluring power is not the same in every individual, but is of variable intensity, and because every organ has acquired during its differentiation a special coefficient of resistance. We know that the protoplasm that we are acquainted with at the present time has not always the same intimate composition. The carbon, the hydrogen, the oxygen and the sulphur enter into it in variable proportions and their chemical differences are sufficient to allow of possible variations in evolution. Who tells us that originally there have not existed divers protoplasms? Here is the reason why we conceive that heredity and congenital diatheses, or those that are acquired during the life of a being, must, because they alter the chemical structure which is the substratum of dynamic life, communicate to the protoplasm a variable power of alluring and also a particular vital resistance. Hence the apparently unexplainable differences of races, families and individuals.

These data will, I trust, have convinced you that senescence and senility are normal phases of life which lead us legitimately to death, as the phase of growth leads to the complete development of the living being. Senilization is therefore made up of different phases which a number of forces pass through

after they have isolated themselves from the great movement of unconscious life by specializing themselves into a definite form for the purpose of furnishing a special and narrow evolution, but a conscious one, and then again eventually to reenter into the general and unconscious movement. Death therefore, properly speaking, and viewed from a high biologic point does not exist. It does exist in reference to the individual and ought to be considered as an ordinary function. So, too, is the picture of death by old age, aside from all moral and physical preconceptions: It is exempt from all sorrow and agony because it does not admit of any pain. It is a progressive diminution and without a sudden blow at once, and at all the organic activities. It is a picture of calmness and of falling asleep, of slow annihilation which does not let the individual even perceive the precise moment when all activity definitely disappears.

It is to this that all our medical efforts should converge: to diminish as much as possible the inequalities in the exhaustion of the various functions, to unify and equalize the wastes of the organs, to render the movements of vital decay and the loss of individuality as imperceptible as possible. This part of the physician's activity has its importance, its utility, its nobleness, and you will find great satisfaction in carrying it out.—From Boy-Teissier's "Maladies Des Vieillards."

INTEGRAL STERILIZATION OF LIQUIDS BY ULTRAVIOLET RAYS

M. Billon-Daguerre had already previously shown to the Academy that liquids can be sterilized by ultraviolet rays. Pursuing his studies further, he found that he could replace the mercury-vapor lamp hitherto used by quartz tubes holding rarified gases, which he illumines by an inductive or static current.—*Gaz. des Hopitaux*, 1909, p. 1626.

DIET IN DIABETES

Le Goff (*Gaz. des Hop.*, 1910, No. 34, p. 476) two years ago called attention to the benefit derived by diabetic patients (as regards diminishing elimination of sugar) from the use of vegetable fats in the form of bread prepared from almonds. He points out that there are many oleaginous seeds that may be used for the same purpose, for instance walnuts, hazelnuts, beech. nuts, poppy seeds, ground-nuts.

In the present communication the author describes the soy bean (soja hispida), which is used extensively as a food in China, and can easily be cultivated in our climate. The soja from Tonkin contains

Fats	12.95%	to	14.80%
Proteids	34.85%	to	38.41%
Starch	26.74%	to	32.11%
Cellulose	3.6%	to	6.2%
Mineral matter	4.35%	to	5.20%
Water	10%	to	11.50%

The Chinese variety contains 20 percent of fats, 41 percent of proteids, and only 14 percent of carbohydrates.

The soy bean can be prepared in a great many different ways and tends materially to improve the nutrition of diabetic patients.

CLEMATIS VITALBA FOR ULCERATION OF VARICOSE VEINS

G. Sieffert of Paris uses clematis vitalba [European virgin-bower. See American Dispensatory] internally, in homeopathic dilution, in ulceration of varicose veins. Externally he employs the same drug as an ointment having the following composition: Tincture of clematis vitalba, 6 parts; lanolin, 20 parts; vasoline, 4 parts.—*Leipzig. Popul. Zeitschr. f. Homeop.*, 1912, p. 96; in *Pharmaz.*

THE TREATMENT OF POSTPARTUM HEMORRHAGE

A. W. Ansems (*Nederl. Tijdschr. v. Geneesk.*, 1909, II, through *Muenchen. Med. Woch.*, 1910, No. 15, p. 810) administers 3 Gm. (45 grains) of calcium lactate *pro die*, for from three to fourteen days after confinement, to combat a tendency to hemorrhage, and reports excellent results. A combination of calcium lactate and calcium chloride would probably be even more effective.

Acute Anterior Poliomyelitis

AS stated editorially in the last number of CLINICAL MEDICINE, we have received many requests from our readers for information concerning acute anterior poliomyelitis, or, as it is commonly known, infantile paralysis.

This disease is widely prevalent throughout the country at the present time. It is epidemic in numerous localities and is attended by an unusually high mortality-rate. While it is generally confined to children, there have been quite a number of reports of the disease attacking adults. Although the number of deaths is relatively small, the paralyses which follow in the wake of these attacks are so general and cause such disability that physicians are naturally anxious to secure all possible information concerning methods of treatment which hold out promise of relief or cure.

In this number of CLINICAL MEDICINE we are printing an article by Dr. Smith J. Townsend of Gilmore, Iowa, which will be read with intense interest. We hope to be able to elicit other contributions from our readers that will throw more light upon the subject, especially upon the *treatment* of infantile paralysis. Concerning its symptomatology, etiology and pathology there is little that is new, aside from Flexner's work, referred to herewith. As an introduction to and basis for discussion the following brief résumé is submitted:

Heretofore it has been merely suspected that acute anterior poliomyelitis was contagious, but now this has been pretty well established as a fact, through the experiments made upon monkeys by Flexner of the Rockefeller Institute. While Dr. Flexner has not actually discovered the organism, he has found that the active agent is a living virus, and this he has transmitted through twenty generations of monkeys. This organism passes through the closest filter without loss of activity. The indications are, therefore, that it belongs to the class of socalled "filterable viruses," and it is so minute that it cannot be revealed even by means of the ultra-microscope.

The period of incubation in monkeys varies from three to thirty days, the average being seven, eight or nine days, though the animals sometimes develop the disease even within three days after inoculation.

Flexner's investigations seem to show that the source of infection, in most cases at least, is the discharge from the mucous membrane of the nose and throat; also that the organism probably reaches the body through the same route. This immediately suggests that an efficient means of preventing the disease is disinfection of the nasal passages with suitable germicidal washes. It should be stated, however, in this connection, that other observers believe that one of the principal routes for infection is the gastrointestinal tract.

The pathologic changes are described in all the textbooks and need not be repeated in detail. House, in a paper published in *Northwest Medicine* for October, 1909, speaks of them as follows:

"Poliomyelitis is not merely a local disease of the anterior portion of the spinal cord, nor even limited to the cord at all. It is a disease due to the presence of a specific agent in the entire body but showing a selective action upon the cord, notably the gray

matter of the anterior horns. The pathology includes congestion and redness of the pia, mottling of the gray matter of the cord, swelling of the cord, especially in the cervical and lumbar enlargements, and tiny hemorrhagic areas in the anterior or occasionally in the posterior horns. These hemorrhagic foci seem to correspond to the ultimate paralyses, i. e., at the hemorrhagic areas only occurs that complete destruction which is productive of permanent palsy.

"The early pathologic changes occurring in the disease are far more extensive in the first stages than the final palsies would indicate. This suggests that there is a control-lesion which is complete and which is surrounded by an area of swelling gradually shading off into healthy tissue, exactly as a boil is surrounded by an inflamed area shading from the necrotic central portion gradually into the healthy tissue around it. And just so does the paralysis indicate that the cord is involved.

"The brain also suffers. In cases recently reported there have been found changes in the brain, especially in the mid-brain, corresponding to those in the cord. This is important, for at the bedside the doubtful cases are those exhibiting a preponderance of cerebral symptoms, such as head pain and unconsciousness. The author has also found it difficult at times to differentiate between cerebral poliomyelitis and tuberculous meningitis because of their similarity quite early in their course; but a few days' observation makes a diagnosis possible."

Several varieties of the disease are described by Dr. H. L. Taylor in the October number of *The Archives of Pediatrics*. He mentions eight, as follows: (1) Spinal poliomyelitis type; (2) ascending or descending palsy; (3) bulbar, or pontine, type; (4) cerebral type; (5) ataxic type; (6) polyneuritic type; (7) meningeal type; (8) abortive type.

The first symptom usually observed in the case of acute anterior poliomyelitis is some distress in the gastrointestinal tract; generally diarrhea, sometimes constipation, and usually abdominal pain. In the mild or moderately severe cases there is slight fever (100°-102° F.); the patient is restless, complains of headache and backache, also of pains in various parts of the body, often described, and occasionally diagnosed, as "rheumatic." After a day or two these symptoms clear up, but there is left behind more or less muscular weakness which generally amounts to actual paralysis, the limbs, especially the legs, being the parts usually affected.

In cases of the more severe type the pain may be very intense, with feeble respiration, rapid heart action, retraction of the head and pain in the neck, the latter especially in the cerebral cases. In cases of the acute ascending type, the paralysis attacks first the extremities, successively involving the bladder, rectum, abdomen, back, chest, and finally the respiratory organs, ending with death.

In the bulbar form the paralysis first attacks the throat, eyes, face, tongue and muscles of swallowing and speaking.

House, who has personally observed thirty-one patients, says that in twenty-four cases there was paralysis of the legs; one case was of the cerebral type; the remaining ones exhibited symptoms of cervical involvement. These three also showed cerebral symptoms. The same author states that the majority of his patients suffered some slight intestinal disorder, with relaxed bowels and abdominal pain. Terriberry, in New York, observed much constipation, and if diarrhea occurred it was secondary. He found the stools offensive and full of scybala.

Both these accounts, although varying slightly, tend to support the theory that the intestinal canal bears an important role in the occurrence of the infection. In the case-histories it often appeared that children had been given castor oil, and appearing better the next day were thought to have recovered. From forty-six to ninety-eight hours later they were found to be unable to move the legs. All had had a rise of temperature to 100° and 101° F. At the time of paralysis all suffered from pain in the affected parts, which was rarely severe, and all had pain in the spine. In most instances in which the lower limbs were involved the patients had some difficulty in passing urine about the third or fourth day.

The mortality-rate is quite high. Late epidemics have averaged from 5 to 20 per-cent, in some cases being as high as 40 per-cent; but usually it is not as high. This

disease is most to be dreaded because of the paralysis it leaves behind, from 75 to 90 percent of the recovered victims being usually more or less crippled for life.

The treatment given in the textbooks is scanty and not at all satisfactory.

House says that no prophylactic treatment of any practical value has as yet been discovered. Flexner's findings suggest that in every case the disease might be prevented by careful attention to asepsis of the pharyngeal and nasal mucosa. According to this author, absorption of the virus by the monkey did not occur if the mucous membrane was intact, but it was quite readily introduced into monkeys where there were abrasions of the nasal mucous surfaces. Peroxide of hydrogen, locally, is suggested.

Whenever a case of this disease occurs in a home, in a school or an institution where children are exposed to the infection, a routine examination of the throat and nose should be made; any defects of the mucous membrane should be properly treated at once and mild antiseptic washes (as above suggested) applied. The bowels should be thoroughly cleaned out with small doses of calomel and podophyllin, followed by an effervescent saline laxative and by colonic flushing, no matter whether diarrhea or constipation be present. This not only gets rid of any intestinal irritant but also lowers blood pressure. Elimination by the urinary tract may likewise be favored by the use of alkaline diuretics.

For the control of the febrile symptoms aconitine is probably the best remedy. It should be given in small doses (gr. 1-134, aconitine, Abbott) to lower blood pressure and bring about defervescence. Veratrine is also suggested, and in sthenic cases this may be even more useful than the aconitine, through its decided action as an eliminant. Frequent hot baths aid in the elimination of the toxins and serve to diminish somewhat the spinal congestion. If gelseminine is used, as suggested later, it may replace or be used in association with aconitine or veratrine.

Is there any remedy which will attack directly the morbific cause?

The suggestion of using urotropin (or formin) made by Dr. Townsend in this issue is a logical one. Cushing and Crowe (*Johns Hopkins Medical Bulletin*, April, 1908, and April, 1909) demonstrated that after ingestion this substance is found in the cerebrospinal fluid and there manifests antiseptic properties. This has led to its use as a prophylactic and curative agent in meningeal affections of various kinds by a number of clinical observers.

It must be kept in mind, as House observes, that this disease probably is characterized by a general infection. This being the case, the agents which combat the organisms of infectious diseases generally should be useful, and of these the most valuable are probably echinacea, calcium sulphide and inunctions with colloidal silver. The first two should be given to saturation, in large doses; the last may be well rubbed in along either side of the spine, in lieu of the usual mustard draft, of course avoiding harmful pressure or unnecessary force.

One of our correspondents (his paper will appear next month) got good results, in one case, with chromium sulphate.

For the relief of pain most clinicians recommend the salicylates. Aspirin (acetyl-salicylic acid) naturally suggests itself. If the pain is very severe, small doses of morphine or moderate doses of codeine may be required. The hyoscine-morphine-cactin combination ought to meet this indication admirably. The patient should, of course, be kept absolutely quiet in bed, the spine being protected from pressure. The plaster jacket has been suggested.

To relieve further the tendency to spinal congestion, one Iowa physician who has had considerable experience uses gelsemium. Since this remedy, in small doses, has a spinal-excitant or strychnine-like action, he says that it must be given in full doses to complete physiological effect in order to secure the depressory action upon the cord. He therefore pushes it to the production of ptosis. In place of the tincture of gelsemium we urge the use of the alkaloid gelseminine.

Our eclectic brethren urge adherence to the "specific" method of treatment, i. e., the meeting of every symptom, as it arises, with the drug specifically indicated to combat the symptom-pathology. For instance,

the scarlatinoid rash and the stiffness and soreness and somnolence of one case suggested the use of rhus, bryonia and echinacea. One writer, in *The Eclectic Medical Gleaner*, says that the remedies which deserve special study in this disease are veratrum, aconite, gelsemium and rhus, while bryonia, echinacea, jaborandi and belladonna may also be useful.

For the stage of convalescence most authorities recommend electricity and massage; however, Dr. Henry L. Taylor (*Archives of Pediatrics*) dissents. Most important is normal use of the parts paralyzed, so as to secure proper balance of affected and unaffected muscle-groups. Next in importance he places vibration. Tonics, such as the triple arsenates with nuclein, nerve reconstructives like lecithin, iron and iodine, alone or combined, will naturally suggest themselves during this period.

We shall hope that this brief résumé may excite some discussion. Many of our readers are in a position to give us practical help. A number of short therapeutic articles are particularly desired. Who will volunteer?

INFANTILE PARALYSIS—WITH FULL RECOVERY

Julia H., age 4 years, became sick with vomiting and purging. Mother gave castor oil and then called me. I made a full examination, then prescribed calomel and more oil. The second day the left leg began to pain the child and from this time on the pain in the leg, with a temperature of 100° F., were the only symptoms. Temperature kept up for about five days, during which time patient was kept in bed on a semi-solid diet. The paralysis soon manifested itself and the pain seemed only to appear on movement.

At the solicitation of the father I called in one of Montana's ablest surgeons, who verified my diagnosis, stating that this case was about the tenth he had seen during the year, 1909. He promised the parents full recovery and advised no further treatment than what I was using, i. e., laxatives and intestinal antiseptics. After the fever left I used the faradic current to the leg and the full length of the spine. (At this time, when the patient was brought to my office in a baby buggy, I noticed an unusual odor of the child's skin, even though the mother bathed the child every day.) After three weeks' treatment with the current there had been so much improvement that the little girl could walk around with only a slight limp and after three months this left and the girl was none the worse for the experience.

F. E. McCann.

Augusta, Mont.

[Have other members of the family noted this peculiar odor? Whatever else the doctor may give, the use of laxatives and the intestinal antiseptics is certainly fundamental.—Ed.]

FIVE CASES OF ANTERIOR POLIOMYELITIS

In response to the inquiry in the October number of Clinical Medicine for experience with paralysis I write you about a few cases, although from memory only.

Case 1. Girl between two and three years old, puny but bright. No prodromes. Arose in the morning and limped whining and crying to the kitchen, saying she could not walk good; wanted to go back to bed. I was called in three or four days later. Child in chair; could not raise right leg; could not place right hand on left shoulder, but the lower arm was all right; held head stiff from paralysis. Some febrile action. Bowels (in this case only) loose. The parents thought the child had suffered from a fall some two weeks before. No great pain at any time. This case did but poorly for three months, and it took eight months for complete recovery.

Case 2. Boy of four years. No marked symptoms except he could not throw one leg forward. Only the muscles on front of thigh were affected.

Case 3. Very similar to No. 2, in all respects. No marked febrile symptoms nor pain. Gradual recovery.

Case 4. Girl of 12. Had had one or two irregular menstruations. Of womanly height and slender. Called for paralysis. She was very constipated all the time. Muscles on the front of one thigh were the

only ones involved. This patient and all except No. 1 (whom I did not observe closely) could at least to a certain extent draw the leg back, but none could throw the leg forward. All these cases occurred late in the fall or early winter of 1909. This patient, now a year older, has been very slowly recovering. She goes to school, but walks with a crutch when going any distance.

Case 5. A big girl of 13. Was consulted by letter because of inability to use pencil six months after a slight paralytic attack. Slowly recovering.

Case 6. Was consulted by letter. Patient lives at Port Oxford and has had no doctor. Complete inability to walk. I saw the father in August, seven months after the first illness. He reported a slow recovery.

In all these cases there was only one thigh involved. In Case 1 the entire side, from head down, was affected. In Case 5 the forearm was involved. All were in families of from four to eight children.

There was no isolation of any case, and no second case in any family.

From the above I deduce a noninfectious, or, at most, a very slightly contagious or infectious disease, with a tendency to involve only localized spots of one side of the membranes of the cord, the lack of pain showing but slight effusion.

In severe cases I believe gelseminine, to reduce fever and pain, would almost be a specific *if the doctor would stay and see it administered* and then leave intelligent directions. Atropine would perhaps be very good.

All recoveries, if the cases are severe, are probably slow.

If pain can be localized would not hot air over the cord be useful?

Until I read the newspaper reports I thought we had something all by ourselves. These cases were several months ahead of any that I saw reported.

F. J. SCHLIEMANN.

Gold Beach, Oreg.

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[The doctor's suggestion of "hot air over the cord" is worth considering. Of course this should be used only after the acute symptoms have entirely passed. We hope someone will try gelseminine and report.—ED.]

CHROMIUM SULPHATE. A LESSON FROM BYRON ROBINSON

Since my report of a case of extensive ulcerative proctitis treated with chromium sulphate (*Helpful Hints for the Busy Doctor*) I have had one more case treated on the same plan and with as good results. In the last case the patient was a woman 68 years old. There were large internal piles that would bleed at every stool. These I removed by injections.

I have been trying out the addition of chromium sulphate to my treatment of beginning pulmonary tuberculosis cases. I believe it is a good thing. My reasons are as follows: first, many patients suffering from incipient tuberculosis are also neurasthenic. If we can build up the nervous system and make it more stable we place the patient in just that much better condition to overcome the tubercle bacilli. Second, the pulmonary tract is an outgrowth from the alimentary tract. Byron Robinson in his book on the sympathetic nervous system gives many instances of the close relation of the two systems.

If the tissues of the colon are acted upon favorably and an infection overcome why not also one in the lungs?

As a side issue I will say that I have cured several cases of chronic bronchitis in old people by giving my entire attention to the rectum. I would find a few old piles or some chronic lesion that had existed for years and was the cause of the reflex disturbance in the chest.

Every practician should have and read Dr. Robinson's books. There is no work published that will do the average man more good than "The Abdominal Brain." It will make him realize that the man is a composite whole with every organ in the body dependent upon its fellows and that disturbance of one part causes more or less disturbance in some other. As a rule the organ in sympathy is one derived from the same portion of the blastoderm and in the same system, though far removed in adult

life. It is by this kind of reasoning that we may often more fully understand the symptoms and make a more accurate diagnosis in our chronic cases.

I trust I have not written too much, but the consideration of the body as a whole is a hobby of mine.

One word more: Baby three months old, 146 boils on body at one time; streptococci in almost pure culture; had tried all usual methods and vaccine therapy with some gain with the last. Then I gave calcium sulphide to saturation. *Well baby!* That's all.

CLIFFORD E. HENRY.

Minneapolis, Minn.

[Dr. Henry's first article, to which he refers, appeared in the July-August, 1910, number of *Helpful Hints*. He described a case of what appeared to be and was diagnosed as sigmoidal cancer, the patient being a woman 60 years old. She was treated with the sulphocarbolates internally and locally with antiseptic washes, with some improvement. The doctor them commenced giving her chromium sulphate, 4 grains four times a day. From that time the condition changed decidedly for the better, and at the time of his report she was practically well. He noticed that the stools, mucous discharges and the face of the ulcers all changed to a deep green color under this medication. Now he reports another similar case, with equally good results.

We shall follow Dr. Henry's experience with chromium sulphate in the treatment of tuberculosis with a great deal of interest. We know but little of the nature of the action of this remedy as yet, but we do know that it is giving good and in some instances really remarkable clinical results. In the treatment of prostatic troubles it already stands practically at the head of the list of remedies, and many cases of exophthalmic goiter and locomotor ataxia have been relieved by it, though it is by no means a "specific" in these diseases.

Byron Robinson was a great thinker. I fully believe that we shall appreciate this fact more in years to come than we do now. The physician who reads his works thoughtfully will get a great deal of practical help from them. Robinson was a great man to apply his scientific knowledge to practical ends.

Calcium sulphide surely is a winner!—ED.]

THE NEW TEST FOR MEDICAL COLLEGES

It is quite the fashion now to depreciate the work of all medical schools save a few which obtained the sole right to exist through the medium of Mr. Flexner. It is very praiseworthy to seek to advance the entrance requirements within certain reasonable bounds, but it is not necessary while doing so to cast aspersions on every one else who does not admit your standard as the only one.

Not only are all other medical schools, save the few favored ones, classed as undesirable, but even those who teach in them are accused of being actuated by sordid motives. I refer to articles printed in the Chicago papers from time to time by men of the profession who pose as champions of the up'ift of present medical teaching.

Why confine "dishonest entrance requirements" to the smaller colleges? This slander is scattered broadcast to warn prospective students that the requirements of the State Board of Illinois are so low as to amount to a farce, whereas, they are the requirements of nine-tenths of the states. Even Mr. Flexner admitted that some of our well-known schools are not living up even to these requirements. It may be questioned whether those who demand two years of college training require that training to be gained in a first-class college. Statistics will show that the two years' college training is made in premedical schools that make no pretense at giving a liberal education such as is given in a first-class college. In fact, one year of these premedical courses is allowed to do the work of a two years' college course. By a strange inconsistency, universities that are clamoring for a two years' college entrance requirement and which are supposed to be the guardians of higher education are offering two degrees, the A. B. and the M. D. for a six-years' course.

It is said the aim is "to reduce the size of the classes." In other departments of

education classes are reduced by supplying more professors. It is not necessary to establish a prohibitive standard. If the desire is to reduce the size of the classes, why does Mr. Flexner advocate but one medical school for the city of Chicago?

Another serious difficulty which confronts these men who alone are interested in the progress of medicine is that "a great many socalled medical schools are purely commercial ventures organized for profit—or what is more common—to advertise the men connected with them." Here we are told that the teachers in all other schools, save the few already referred to, are teaching for the sake of advertisement. If these gentlemen when talking for the press would confine themselves to the question in hand, what constitutes a good medical school, and discontinue attributing sordid motives to those who differ from them, they would do more towards elevating the profession than by demanding an extra year of entrance requirements. Why is it that the only teachers who fling mud at each other are those engaged in medical schools?

There are evidently more ways of obtaining advertisement than by teaching in the smaller medical colleges.

In the same breath we are told that most of the smaller colleges pay no salaries to their professors. Do the university medical schools pay salaries to all their professors? The American Medical Association in requiring that seven instructors devote their whole term to teaching has indicated a maximum which few schools live up to. Supposing that the favored medical college pay these seven men high salaries to devote their whole time to college work, will they be able to contribute anything to the eighty or more extra professors engaged in their schools? Experience has shown that they have not. In fact, it will be found that many of the paid professors are engaged in other departments of university work besides that of medicine. Why then speak of it as a slur that physicians teach in smaller colleges without salary? If it be not an advertisement, why do physicians in our greater medical schools pay for the privilege of holding a chair? Does not the advertisement pay them?

We must conclude from much that we read on this subject that the only medical school that rises to the dignity of the situation is one which is always losing money, paying higher salaries to all the professors, and ever on the alert to reduce the size of its classes. This is the new test for a good medical school. The conclusion follows: either get an endowment of millions from private sources or hand over medical education to the state with its boundless powers of taxation. Of course, this latter alternative would be quite as disagreeable to the favored few as to the smaller medical schools. We need not take it for granted that pure philanthropy belongs only to those who conduct endowed institutions.

ALEXANDER J. BURROWES.

Chicago, Ill.

[We take pleasure in publishing this critique, written by the distinguished president of Loyola University.—ED.]

A PECULIAR DERMATITIS

I am enclosing you two pictures of a skin disease I found some time ago, with the following history, as nearly as I can get at it. The patient was Mrs. J. I., age 36, married eighteen years, mother of two children, youngest eleven years old. She had four miscarriages previous to the birth of the oldest living child.

In July, 1909, she began to notice symptoms of uterine enlargement, though the menstrual periods continued regular. The attending physician could not diagnose pregnancy. This continued until April 11, 1910, when her physician removed two polypi and something else described by the patient as "a growth." I cannot ascertain what this was. Two days prior to the operation skin lesions, as shown herein, began to appear on the abdomen and gradually extended down the anterior portion of both legs, later involving the arms. These have recurred in some places as many as three times. There are none on the face, neck, hands or back.

The eruption first appears as an ordinary dermatitis, then becomes vesicular and later pustular, and then the surface sloughs

off, leaving a dark purple color which up to this time (six months after the first appearance) still remains. She has had more or less vomiting all through the trouble, but of late has been unable to keep any food on

The peculiar dermatitis

the stomach very long. Bowel movements have been free but there is no diarrhea. She urinates very freely. Examination reveals nothing abnormal in urine whatever.

The patient has always been a working woman and her surroundings are not very good. She has never eaten cornmeal in any form at any time of her life. The father died of Bright's disease. Mother is living at 74 years of age and is in good health. The rest of the family history is negative.

The woman is large and fleshy and very nervous.

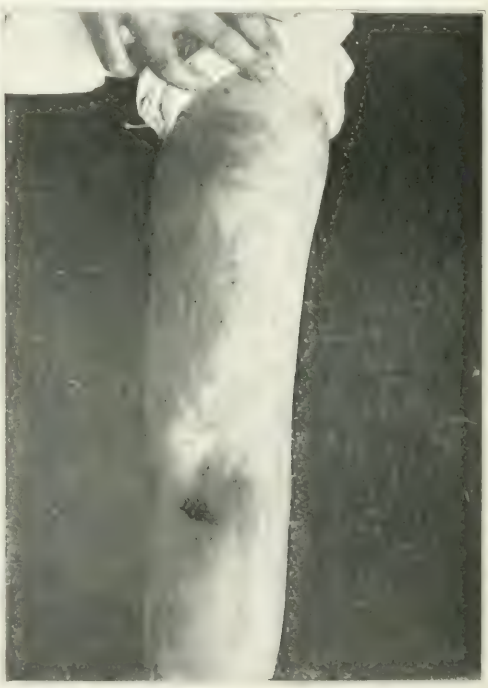
There is no pain about these lesions, but there is a feeling which she describes as that of a burn after the acute stage is over. Some of her symptoms fit in with pellagra very closely while others are away off.

If from this meager history you can give me some idea of what it is I would appreciate it very much.

A. C. D.

——, Wisconsin.

[From the data furnished we are inclined to regard this as a case of dermatitis herpetiformis, pustular variety. It is not always easy, as you know, to distinguish dermatitis herpetiformis from herpes gestationis and some forms of pemphigus. Not infrequently dermatitis of this type appears in women suffering from endometritis or other disease of the uterus and adnexa.



Another view of the eruption

The blood of this woman should be examined together with the contents of the bullæ when they first appear and a scraping from the affected area after crusts have formed. If you will consult Hyde's "Diseases of the Skin" you will find a very excellent description of the various forms of dermatitis herpetiformis.

The exanthem may be vesicular, pustular, papular or even purpuric in type and multiform combinations of these lesions may recur in every variation. In typical cases

the disease presents vesicular symptoms of the herpetic type. Later the contents of the bullæ become cloudy, hemorrhagic or purulent. Burning sensations are usually experienced. Itching may or may not be complained of. Pigmentation is frequently marked and occasionally lesions are distinctly purpuric in appearance.

This disease may last for months and even for years with periods of relative or entire immunity. It is extremely rebellious to treatment. Crusting, lymphangitis and lichenfication may be the result of scratching and secondary infection. In grave cases there is a more or less progressive cachexia, diarrhea (evidencing gastrointestinal involvement), fever, alternated with chills and involvement of the respiratory organs or kidneys. Serious disturbance of the nervous system is frequently observed; in fact, the disease, while it occurs in most sexes and at all ages, is met with most frequently in individuals of neurasthenic type or in those in whom the nervous system has been subjected to unusual strain. Menstrual irregularities, pregnancy or the puerperal state, nervous shock, defective renal excretion and exposure to cold have been cited as causing the malady. In our own opinion there is an underlying toxemia in every case. Other clinicians consider the disease a neurosis.

In order to treat such a case successfully it is essential that a normal condition of the body chemistry be maintained. The patient should receive nutritious, easily assimilated foods, spend a great deal of time in the sunshine and exercise regularly in the open air. Arsenic in small doses frequently repeated is of extreme value. We would prefer the arsenates of iron, quinine and strychnine, alternated week and week about with arsenic iodide, gr. 1-67, after meals. Iridin, stillingin and boldine in rather full doses should be given before eating. Small doses of blue mass and soda and podophyllotoxin should be given at 8, 9 and 10 every second night and a laxative saline draught administered the next morning. The affected areas should be sponged with a carbolated solution of epsom salt, one ounce of magnesium sulphate and 20 minims of carbolic acid in 3 pints of water, morning and night; the parts are then to be dried and carbenzol or similar product applied upon gauze.

Existing disturbances of the general economy, i. e., acidemia, kidney disease, intestinal indigestion, constipation, etc., must be recognized and treated. In every case the reproductive organs should receive special attention. Many of these patients respond after a preliminary course of eliminants. Nuclein will probably prove beneficial. The urine should be examined frequently, at least every ten days, and a normal output of urea and solids secured. Small doses of pilocarpine and applications of the hot-pack have proven helpful in very many cases.

A leucodescent or similar high power lamp, used with the green or violet screen, may be serviceable.

We do not think there is any reason to suspect pellagra here. We trust, however, that the doctor will keep records of the progress of this patient and send us report for the benefit of the profession.—Ed.]

WHO WANTS THESE FORMULAS?

Dr. J. H. McCartney, of 929 Lake Avenue, Rochester, New York, says he has useful formulas for the treatment of asthma, hayfever and malaria, which he will gladly send free to anyone who wants them, provided they will send self-directed and *stamped* envelope.

COMMENTS ON THE OPERATION OF CIRCUMCISION

The operation for circumcision described by Dr. Breakstone (Clinical Medicine, October, 1910) is identical with the one I do. However, I have found the dressings herewith illustrated an improvement upon any formerly used. After getting the operation to the suture stage, suture in the usual way, by interrupted sutures, tie, and leave suture-ends two inches long. Have an assistant hold the ends separately on each side until a small roll of gauze is placed about the glans, over the tied sutures, then bring the free ends of the sutures over the gauze dressing and tie in place. The last suture ties in both ends of the gauze, making a

dressing which can not be removed by the patient, is not easily soiled, prevents obstruction of the urine, and renders bandages or other dressings superfluous.

Since using this method I have never had the annoyance from erections that are often a great nuisance following this operation.

Your favorite dry antiseptic may be used with this dressing, but in infected cases I

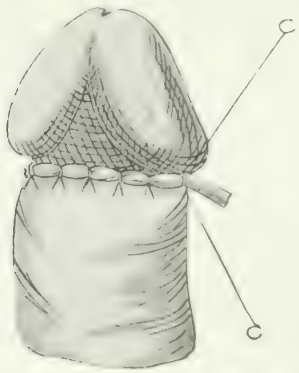


Fig. A. Sutures applied and ready for dressing

have used wet dressings until the stitches were ready to come out. The gauze should be applied loosely so that in case of swelling it will not cause unnecessary constriction. Should this occur, however, you may cut the gauze with a pair of sharp scissors in one or two places between the sutures and no further trouble is experienced. Sutures I like best are silkworm gut or horsehair.

FRANK A. GREEDY.

Denver, Colo.

GENERAL DIRECTIONS FOR LENGTHENING LIFE AND PREVENTING DISEASE

Dr. E. A. Huff, of Warsaw, Indiana, issues slips bearing these very lucid instructions:

1. Breathe pure air night and day; breathe deeply; ventilate living and sleeping rooms at all times of the year. No air, no life.

2. Drink much pure water between meals. Don't drink iced water, iced tea or iced milk. Avoid tea, coffee and alcoholics. Do not drink while eating.

3. Live on a diet of plain food. Chew all food thoroughly. Have a variety of food, but do not eat too much. More sickness and death result from overfeeding than from underfeeding. Don't eat when greatly fatigued or when angry or when overcome by grief or excitement.

Fig. B. Gauze ½ inch by six inches

4. If your teeth are faulty have a dentist put them in good condition. If you have no teeth, buy some. Maintain a perfect toilet of teeth and mouth.

Fig. C. Gauze loosely rolled or folded, exact length to be determined, when last suture is tied

5. Attend nature's calls promptly; delays are dangerous.

6. Take sufficient exercise every day, always in the fresh air.

7. Bathe frequently; cleanliness approaches godliness.

Fig. D. Dressings in place. Nothing further needed, except to tie remaining suture

8. Be regular in your daily habits, and avoid extreme fatigue, worry, quarrels, ill temper, and extremes of all kinds.

9. Cultivate cheerfulness, placidity and will-power.

10. Take no medicine or drugs except on the advice of your physician, and have

him examine you thoroughly two or more times a year to see if every organ is doing its work properly. It is better to be safe than sorry.

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[We wish every practician in the country would distribute similar literature. It is a peculiar thing that the conscientious physician feels impelled to give instructions to those among whom he resides which must of necessity materially curtail his own income. Half the ills of humanity are due to disregard of the ordinary laws of health. If the physician teaches his clientele to exist intelligently, he is going to find his exchequer seriously depleted at the end of the year, and yet physicians are doing this thing every day, and smile when shrewder people sneeringly remark: "As a business man the doctor is a poor proposition." The "business man" would certainly not distribute general directions for lengthening life and preventing disease.—ED.]

THE ARMY MEDICINE CHEST

On page 1116 of the October CLINIC Paul W. Gibson, presumably an army surgeon, though he does not so state, takes occasion to "call me down" for my criticism of the regular-army medicine-chest. The gentleman intimates that my remarks were almost, if not quite, *lese majeste*. In my simple ignorance I have lived almost ha f a lifetime supposing that where the Constitution granted me the right to express my opinion that it meant what it says; here, at this late day, I find that I have been mistaken, and that that particular article was put into that immortal document as a sort of joke. I suppose that I have a list of transgressions laid up against me that would indict me for treason, if some of the Army surgeons would but take the trouble to look them up, for I have never been in the least careful about speaking my mind on any subject that I might form any opinion upon.

I stated that the Army medicine-chest was "archaic," and since my return from the maneuver encampment that opinion is strengthened. It would be folly for me to say there are no good things in it. . I could, if marooned on an island where I could obtain no other medicines, make out to get along with it very well, but in this day of enlightened therapeutics it is behind the times. It is of the school of twenty years ago. Outside of the hypodermic alkaloids that Dr. Gibson points to with such pride, there are very few modern remedies. And if you will kindly glance over his article again, you will see that more than half his list is made up of these hypodermic tablets.

Before passing to a cursory analysis of the medicinal contents of the regimental medicine-chest I wish to pay my compliments to the man who arranged the accessory side of the thing. The chest contains, in the smallest space possible, an equipment of diagnostic instruments, medical appliances and necessaries, that are as nearly complete as anything I ever saw, and these, too, of the latest and most-approved pattern.

It is in the medicinal phase of the chest that progressiveness is lacking. Dr. Gibson mentions epsom salt. Now, I have no desire whatever to attempt to practise medicine without this valuable remedy, but I submit that sixteen pounds of it in one case is a little greater quantity than is absolutely necessary. One would suppose that the designer of the case expected each individual man in the regiment to need cleaning out on an average of once a week. I suppose the man that got up the case had a consultation with the Ration Board, and he knew what the Ration Board was going to feed the men so he arranged the salts accordingly. They got so busy shoveling in the salts that they forgot the castor oil. They didn't forget, however, to put in four pounds of vaseline and three different kinds of medicinal plasters. Now, if any man will point out to me where a medicinal plaster ever accomplished any good I shall be greatly indebted to him.

Not content with furnishng the poor suffering "rooky" with his proportion of sixteen pounds of salts, they chucked in four pounds of compound cathartic pills. Then to even matters up, they stuck in a pound of turpentine and another of glycerin—good things, both of them, but you and I can think of other things so much better that the space occupied by them may be said to be wasted.

I could go on indefinitely and call your attention to monstrosities, but will append a few of the most glaring only. The case contains a five-ounce tin of tablets of arsenic trioxide, a three-ounce tin of tablets of ipecac, a five-ounce tin of tablets of sodium bicarbonate, and a seven-ounce bottle of tablets of sulphonal.

The case is perfectly guiltless of any of the newer remedies. I looked in vain for so common a thing as calcium sulphide. I was obliged to treat my gonorrhea cases with the old lead-acetate injection, for there was no argyrol. I gave them salol as an intestinal antiseptic, for the case contained nothing better; I could find no zinc sulphocarbolate for an intestinal antiseptic. The man who got that case up never heard of nuclein. His mind did not reach even as far as aconitine, to say nothing of the trinity combination.

In conclusion, I wish to state that I refuse to be drawn into a controversy on this subject. My time is entirely too busy to waste in the discussion of a matter that will be of no benefit to either party. After we were through, the Army men would be convinced that I am an ignoramus, and I should be convinced that they are consumed with self-sufficiency. This I must say, however: My association with the Regular-Army surgeons at Camp Cosgrove was of the most gratifying nature. I found them invariably to be men of culture and education, genial, whole-souled, and always ready to lend a helping hand. I shall ever remember with emotions of pleasure my meeting with each one of them, but more particularly Chief Surgeon, Lt.-Col. Ebert, Major Surgeon Trubey, and Major Surgeon Munson, the latter the most eminent authority on military sanitation and hygiene.

CHARLES STUART MOODY.

Sandpoint, Ida.

DR. T. D. CROTHERS TO LECTURE IN ST. LOUIS

Dr. T. D. Crothers of Hartford, Conn., editor of *The Journal of Inebriety*, will deliver a series of lectures on "Alcohol" and on "Drug Addiction," before the students of the American Medical College of St. Louis. These lectures will be given December 8–10, 1910, and will be open to the general public as well as to students and members of the medical profession.

WARM COMPLIMENT FOR "CLINICAL MEDICINE"

I have been familiar with THE AMERICAN JOURNAL OF CLINICAL MEDICINE throughout its present life as well as in its chrysalis condition as THE ALKALOIDAL CLINIC. While one might not always keep from suspecting that in its earlier condition it was sometimes made subsidiary to the sale of alkaloidal preparations, I am unable to see how any medical man, not a therapeutic pessimist, can refuse his admiration of its work for his profession, and through it for the human race, in its present life. For me it is an impossibility to get along without its monthly visits.

GEORGE M. AYLESWORTH.

Collingwood, Ont., Can.

THE TREATMENT OF POSTPARTUM HEMORRHAGE

Hemorrhage during or soon after the third stage of labor is one of the most trying and dangerous accidents connected with parturition. Its sudden and unexpected occurrence just after the labor appears to be happily terminated and its alarming effect on the patient, who is often placed in the utmost danger in a few minutes, tax the presence of mind and the resources of the practician to the utmost.

There is no emergency in obstetrics which leaves less time for reflection and consultation, and the life of the patient will depend on the prompt action of the doctor. It is one of the most frequent complications of delivery, but generally a preventable accident, if the third stage of labor is conducted as it should be. This fact cannot be too strongly impressed on the doctor.

The completing of the second and entire third stage of labor is the most trying and dangerous time for hemorrhage. The placenta is separated by the last pains and the blood, which in greater or less quantity accompanies the fetus, probably comes

from the uteroplacental vessels, which are then lacerated, almost immediately afterward. The uterus contracts firmly and in a typical labor assumes the hard cricket-ball form. The result is the compression of all the vascular trunks of the uterus, and thus the flow of blood is prevented. The vessels are large and destitute of valves, and if contraction is absent, or only partial and irregular, it is equally easy to understand why blood will flow forth in such appalling amounts.

Preventive Treatment.—This should be practised in every case of labor. Place one hand over the uterus and follow it down as the child is delivered, making continued pressure for fifteen or twenty minutes. Then use Crédé's method until the placenta is expelled, and then continue pressure for thirty minutes to one hour, to insure firm contraction. Then apply the binder if necessary to keep up gentle pressure. It is good practice to administer a full dose of ergot as soon as the expulsion of the placenta is effected.

Curative Treatment.—There are two ways nature adopts for preventing postpartum hemorrhage. First, that which produces uterine contraction. Second, that which produces thromboses in the vessels. The first is the one most commonly taking place, and only in the worst cases does it fail.

Uterine Pressure.—Have the patient on her back, legs flexed, introduce one hand into the vagina or uterus, grasp the fundus with the other hand, making downward pressure, and clear out the placenta and any clots found there. Then keep the hand in the vagina, in the posterior cul-de-sac, so as to reach the posterior part of the uterus, at the same time grasping the fundus with the other hand, through the abdominal wall, making counterpressure, thus bringing the walls of the uterus together, meanwhile pressing the organ against the posterior wall of the symphysis pubis and keeping it there. We then have the leaking uterus between three pressure points.

Now have the assistant remove the pillows, raise the foot of the bed, allow a current of air in the room, and continually fan the patient. Dash cold water in her face and slap the abdomen with a wet towel or wet hands. Give glonoin and atropine hypodermatically, or put a tablet in her mouth and let her chew and swallow it. This will reduce shock to the minimum, save time and flush capillaries. Next give a full dose of ergot in some form (best hypodermically), repeating as necessary.

Ice introduced into the uterus sometimes is good. Packing the uterus with sterile gauze saturated with acetic acid or apple vinegar will often prove of benefit. Packing the vagina is mentioned only to be condemned. Injection of very hot water into the uterus is highly recommended. Some of the styptics might be used to advantage. In extreme exhaustion and exsanguination hypoderm clysis of normal saline solution, a pint or more (and repeated as necessary), injected into the nates or thigh or under the breasts, is a life saver. Also a hypodermic of ether, a fluid dram, may be given, and repeated as necessary. After the flow is stopped, the following combination may be given:

Strychnine, 1-67 to 1-30 grain; glonoin, 1-250 to 1-100 grain; cactin, 1-100 to 1-67 grain; nuclein, 4 to 8 minims.

Repeat this dose every two to four hours. This is excellent. It can be given hypodermically if necessary. Continue this for some time.

A few doses of atropine every four to six hours, for a few doses, to flush the capillaries, is of value. Brandy or whisky given in 1- or 2-dram doses is a good stimulant.

Convalescence requires the best of nourishing diet and tonics to increase the quantity of blood. A trip to some mineral springs is of benefit.

The compression-method is to me *the* emergency treatment and will save the patient's life, while to trust to medicine given in any way and depend on it exclusively is very bad practice and almost always ends fatally.

M. G. Walker.

Coleman, Tex.

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[As yet we have received no reports of the failure of atropine in stopping any form of uterine hemorrhage. It must be given in full doses, enough to flush the skin. Quicker action is secured by adding glonoin.

Ergot is too slow. Dr. Walker rightly names all available means, for the best is that which can be utilized at once.—ED.]

SUPERIORITY OF POSITIVE MEDICATION

Asserted facts in medicine and clinical hypotheses must have support in truth, else they are error. There is no intermediate position. Any medical theory or practice not correct with respect to any given physical disorder, or as to remedial agents and their application, is false, whatever the prevailing theories and rules of treatment may be.

If every teacher in every medical college would get focused into his cranium the guiding light that sways Dr. Waugh, the Dean of Bennett Medical College, and Prof. Dorland, of the University of Pennsylvania, their graduates would go forth and enter upon the path strewn with rocks and thorns that bruise their feet and tear their flesh, in the early struggles of practice, equipped with something superior to a bootless diploma, ready to cope with problems that cost so many head- and heart-aches, where now this knowledge must be acquired in the shadow of the wings of the brooding Angel of Death.

I cannot conceive how it is possible for any practician to persist in the stupid faith of the darkness of ignorance after reading the magnificent address of Professor Dorland, delivered before the 1910 graduating class of Bennett Medical College. [See CLINICAL MEDICINE, June 1910, page 613.]

Some of our brainiest medical editors will treat the very same subject in an absolutely diametrically opposite manner, thus demonstrating the falsity of our present-day instruction or a wrong conception of things due to superstition, credulity, and in ignorance inherited from the dark past.

Carbolic Acid for Wounds.—In this brilliant age of dazzling scientific light contributors to medical journals and their editors still continue to recommend solutions of phenol in water, when the pure article, either liquefied by heat, compounded with equal parts of chloral and camphor, or mixed with olive oil—as has been known for twenty years—is the only rational form in which this agent should be applied.

Almost daily there come under my care horrible machete cuts down to the bone. These wounds I pour full of full-strength liquefied phenol, thereby staunching the blood promptly and mitigating the pain. Afterward I dress daily with a mixture of phenol, chloral and camphor, the healing being rapid, without pus formation, while immunity from absorption is absolute. So, also, boils, ulcers, hemorrhoids, cancer, cutaneous diseases, catarrh, gonorrhea, burns, or any other disorder of the flesh may be cured with the agents named when used in proper strength.

Pure phenol (that is, full-strength carbolic acid) should never be applied where it will mix with pus or watery exudations that might dilute it so as to become absorbable, while any overflow should be promptly washed off with alcohol. The chloral-camphor compound or solution in olive oil may be applied anywhere with impunity. I use no other disinfectant for wounds or on my instruments, and I never have any inflammation; and there is no climate anywhere more favorable to septic infection of wounds and to impregnate instruments than right here.

Fevers Can Be Aborted.—I am often intensely pained when I read denials, by reputable men, of the power of drugs to abort and to cure disease, as also the assertion that fevers must run a specific course, when, as a matter of fact, I am demonstrating the contrary every single day in the year. I will try to prove to the medical profession, those who read my occasional contributions, that I am doing far more than I tell in print.

I am, at present, caring for the laborers on one of the big American rubber plantations, where the percentage of sickness and death has been appalling under the former galenic medication, and I will now give you sceptics and therapeutic nihilists the result of my methods with positive medication as corroborated by those Americans who engage my services, and who, absolutely voluntarily, have added twenty-five percent to the charges made by me, so satisfied were they with the result of my work during the first four months (the sickliest months in the

year) of my professional services. This report will cover the year 1910.

My readers all know the character of the fevers that confront me by the hundreds of cases. However, three hours or less is about the average course most of them run under my treatment, with but rare relapses. Putrid dysentery, if the patient is seen early enough, seldom lasts more than twelve hours.

Many of the profession in the United States are familiar with the medicines I employ. Also, there are able Mexican practicians who have learned my methods. These have tried to explain to the other native doctors my simple rules of practice, but only too often are they ridiculed for their pains. As to that, ridicule does not worry me.

Medicine and Progress.—Those who may have read my various disquisitions know that for many years I have predicted the evolvement of a lofty ideal standard of medical science, a time when physicians would be able to emancipate suffering humanity from the scourge of disease and to circumvent premature death, never then dreaming that I should live to see the dawn of a promised realization of my prophecy, as now so beautifully bodied forth in the form of legalized sterilization of the defective members of society and the arrest of the spread of infectious diseases. The very atmosphere is imbued with the germs of rational thought, so solemn and profound that the popular mind is beconing impreganted to such a degree that the people begin to demonstrate a dangerous impatience with medical apathy by taking refuge outside the professional realm.

These things should alarm and bring doctors to their senses. Were they making their pretensions even only partially good, their patients would not flock to still more preposterous pretenders, in quest of what a medical farce fails to supply. They know that progress is on and that their doctor has not kept pace, and so hope to find some of their due inheritance in the possession of his antagonists.

All this deplorable demoralization will properly reform itself in time, as truth always prevails in the end; but it will come to pass the sooner if only doctors will cut loose from their barnacled anchorage and employ medication in truly scientific practice. Any doctor who cannot or who does not do anything I can do, as readily as he can dress a pin-scratch, is a stranger to scientific medicine, though in this I myself am yet a mere bungling tyro, to such perfection is the practice destined to develop in the near future.

Rational Medication Wins.—I know, and scores of worthy practicians among you know, that clinical instruction and practice, as generally in vogue, are erroneous, and current materia-medica and textbook rules are false, because they are impotent to cope with tropical-disease conditions which I control with scientific medicine and rational methods, without difficulty and with a mortality too insignificant to be believed.

There is no use to pretend that the diseases treated by me are not the most virulent and deadly known to the profession, or to imagine that galenic preparations and treatment could cope with them without having in their wake a startling mortality, or prostration and emaciation involving a protracted convalescence.

Your own progressive physicians who announce the abortion or the rapid cure of pneumonia and typhoid fever, with a low death-rate, are sneered at, and the profession is promptly assured that the diagnosis was erroneous and the men with the courage to make such an announcement the victims of stupid ignorance. But the men making these strictures never saw one of the patients treated nor have they the slightest testimony to support their denials, save their own mournful experience with worthless drugs and wrong methods—exactly the fateful contingencies that develop and confirm medical nihilism.

I contemplate quitting this field in a year, or two years at the most, and should like to leave some young man of iron constitution and nerve to initiate himself in my stead. It is a post, I will add, though, requiring self-abnegating devotion to medical science, and putting up with a trying isolated practice. Such a man should be one with a working knowledge of Spanish and capital sufficient so as not to be cramped at first; willing to take up and prosecute the work

on the lines I pursue, to the attainment of that ideal which I see may ultimately be realized. I am more than willing to give such hints as may be useful to anyone in quest of a legitimate therapy and system of medication.

ROBERT GRAY.

Pichucalco, Chiapas, Mex.

LOCAL USE OF GLYCERIN IN PNEUMONIA

Just a word as to Dr. J. M. Shaller's treatment of lobar pneumonia, published in CLINICAL MEDICINE some months ago. In addition to the doctor's use of aconitine, I should advise the use of glycerin, externally, to invite the serum of the blood and thus remove congestion. This can be done either by the application of a large plaster of antiphlogistine, or a plentiful amount of glycerin may be put on with canton flannel, the latter to be covered over with cotton batting to absorb the water abstracted from the underlying tissues. With glycerin thus applied I have aborted double pneumonia in a lady patient eighty-three years of age, and I feel satisfied that without the glycerin she would have died. She was able to be up about the house in four days.

A. K. VAN HORNE.

Jerseyville, Ill.

[When we are thinking about local applications in pneumonia we should not forget one very useful proprietary remedy—Lloyd's "libradol." This is a plastic dressing, carrying the medicinal constituents of tobacco, lobelia, capsicum, dracontium and other useful plant remedies. It contains no opium or other dangerous narcotics. In "colds" and pneumonias of the sthenic type it makes a nice local application; if there is much depression it should be used with caution, if at all.

This is the pneumonia season. The doctor who has not learned the possibilities of such remedies as aconitine and veratrine, combined with digitalin and strychnine arsenate, in the "trinity" and the defervescent compound, and the importance of the clean-out and of the intestinal antiseptics, has an agreeable surprise in store, provided he will investigate and actually *try*.—ED.]

HOW I TREAT PNEUMONIA

Having established the presence of pneumonococci in saliva and sputum, begin by clearing the bowels with the podophyllin and calomel granules, 1-6 grain each, giving one or two granules every hour till 1 or 1 1-2 grains of each drug has been taken, according to the patient's state. (Treat the patient!)

Then for the fever. If sthenic, give aconitine, digitalin and veratrine. If asthenic, omit the veratrine, but add strychnine. Keep the bowels thoroughly clean, but now avoid excessive purging, for this weakens and overtaxes the heart. Use the sulphocarbolates and the menthol compound for antiseptics. Disinfect the sputum, before it dries, by covering it with a five-percent phenol solution. Give (from the first) nuclein, 15 minims every four hours, under the tongue, with a 20-minim dose once every evening, hypodermatically. Ease the cough with codeine.

Give rest. *Watch the pulse.* Guard against any and all worry or excitement, however slight it may be. Keep your hypodermic syringe at hand, and don't be afraid to use it, *only make reasonably sure you are right.* Do not allow the patient to leave the bed till you are sure it is safe. As a tonic, put him on the triple arsenates of quinine, iron, and strychnine with nuclein, with occasional doses of salithia.

At every stage of the treatment calcium sulphide given to saturation is a great weapon. During the entire treatment the *room should be well ventilated*, only avoiding draughts and keeping the temperature at 65° F., or a trifle higher. Occasional enemas of soapy water, at 110° or 115° F., will be found useful to circumvent medicinal purges.

During the earlier stages of the attack I find a warm bath with 4 ounces of magnesium sulphate to one quart of water, administered every twelve hours, of great assistance. This solution may be as warm as the patient can bear without discomfort, being sure to rub the body, limbs and the whole system till full reaction occurs. To assist in relieving visceral congestion the

feet and lower limbs may be treated with occasional hot baths. Cool packs are applied to the body, these to be removed as soon as the patient generates sufficient systemic heat. An ice-bag to the head may be of benefit in relieving cerebral congestion.

When *complications* call for the same remedies as are indicated by the primary condition, it may be necessary to give heavier doses to combat the evil, inasmuch as it is indicated by two or more affections.

Endocarditis.—Here veratrine and aconitine are the indicated remedies for the fever and the excitability of the heart, and are to be given every ten to thirty minutes, as needed. Do not neglect the "keep-clean" system, and remember the necessity of giving 5 or 10 grains of the sulphocarbolates three times a day, before meals.

Neuralgia.—See to elimination. Order rest—thorough rest. Administer quinine, gr. 1; aconitine, gr. 1-134; digitalin, gr. 1-67, half-hourly. Give brisk massages. If the headache is severe from excessive nervousness, give acetanilid to the patient's full capacity. Glonoin answers for temporary relief.

Meningitis.—I treat fever of a complicating meningitis about the same as in other given cases, pushing nuclein at the rate of 10 minims every half hour, subcutaneously, or double that amount by mouth, placed under the tongue. Look first and last to thorough elimination. Flush the capillaries with hyoscyamine or glonoin. Digitalin and strychnine arsenate, gr. 1-67 each, with veratrine, combat spasms. Reduce congestions with ice locally. Enjoin absolute quietness.

E. H. HENDRICKS.

Randlett, Okla.

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[Every phenomenon has its meaning; and the man who looks beneath the surface to recognize causes, may ask himself the reasons for the confidence displayed by the user of active principles and pure chemical agencies. Compare this with the Franklin form of cautious suggestion that "in some cases it has seemed to me that possibly iodides might have been of some service!" Temporizing, cowardly, ready to run if the enemy's spear glittered in the distance—yet that is about all one could venture upon with the old crude uncertainties.—ED.]

THE SURGICAL CONGRESS IN CHICAGO

Thanks to the initiative of Dr. Franklin H. Martin and his co-workers on the staff of *Surgery, Gynecology and Obstetrics*, we are now having a great Surgical Congress in this city, one which has drawn hundreds of the most able surgeons of America to Chicago. The work of the Congress is mainly clinical. As all the world knows, the local profession is proud of its hospitals, of which it has its full share. For two weeks during the middle of November practically every one of these forty or fifty institutions has been converted into a surgical clinic, in which visiting physicians may see the work of the ablest men.

I presume that nearly every operation that can be conceived has been performed in Chicago during the Congress. Thus the visiting physicians have had the finest possible "post-graduate course," and entirely without charge. In the evenings there have been addresses on important surgical and allied subjects, and there has been no lack of social entertainment.

Everyone says that the Congress has been a great success, and now the demand, coming from every side, is that it be made a permanent event. Chicago holds the open door. CLINICAL MEDICINE can confidently speak for every member of the profession of this city in inviting the surgeons and physicians of America to return in 1911—and every year thereafter. This city is assuredly the "surgical center" of America; hence it should be, by all means, the permanent home of the Congress.

Next month we shall print "The Story of the Congress," presented in greater detail by Dr. Emory Lanphear of St. Louis, who was an interested visitor and participant in its work. We are sure that every doctor in the land will want to read his report.

The surgeons of this country owe a great debt to Dr. Franklin H. Martin. The idea of the Congress was his own, evolved out of his journalistic experience, and a natural corrollary to the work of his splendid magazine, *Surgery, Gynecology and Obstetrics.*

The brilliant manner in which he has carried his plan through reflects the greatest credit upon the doctor himself, and should serve still further to strengthen the position of his already strong publication. As an "advertising" stunt (perish the despicable word!) it was great! We hope it will bring him 10,000 new subscribers—even one from *you*, Doctor, who may read these lines.

LATER.—Since the preceding was written the organization of the Clinical Congress of the Surgeons of North America has been perfected. The purpose of this organization is to give the surgeons of the country the benefit of the latest developments in surgical science by the means of clinical demonstrations to be held annually in the principal medical centers of the country. Delegates to the Congress are to be elected periodically, one from each congressional district, two at large from each state, two from each province of Canada, two from Mexico and each Central American republic, and two from each colony of the United States, Porto Rico, the Philippines and Hawaii. This organization is an entirely independent one, not affiliated with the A. M. A., proposal to restrict membership to those belonging to the latter body having been voted down.

The following were elected officers of the Congress:

President, Dr. Albert J. Ochsner, Chicago.

Vice-president, Dr. John B. Clarke, Philadelphia.

Editor and general secretary, Dr. Franklin H. Martin, Chicago.

Treasurer, Dr. L. B. Kanavel, Chicago.

General manager, A. D. Ballou, Chicago.

A "BEYOND THE BORDERS" NUMBER

Early in the year 1911 we shall issue a "Beyond the Borders" number of CLINICAL MEDICINE, for which we have already accumulated a large amount of material. The leading articles in this number, as well as much of the miscellaneous and other departments, will be contributed by men who live outside of the United States. Probably no medical journal published has so many readers living in foreign lands. We shall be glad to hear from as many of these as possible, with short articles for publication in this special number. Especially shall we be glad to hear from medical missionaries, of whom we can count a large number upon our list, representig practically all religious denominations—Catholic and Protestant. The world is big, the distance which the CLINIC travels is so great and so much time is required for correspondence that we hope that our "Beyond the Borders" friends will respond at once.

"HELPFUL HINTS" ABOUT CALCIUM SULPHIDE

Just a few helpful hints in return for the many valuable pointers I receive from CLINICAL MEDICINE.

Calcium sulphide given in grain-doses relieves heartburn or any burning feeling in the stomach.

Calcium sulphide, in similar dosage, has acted as a laxative in some of my cases.

Calcium sulphide, one grain every two hours, has cured canker sores in the mouth within twelve hours.

Calcium sulphide given in 1-2-grain doses every three hours, to a woman 76 years old, who had an ulcer the size of a dollar just above the ankle, on the inner side, in association with local dressings, caused the sore to heal completely in three weeks.

Phenolphthalein sometimes works better if given with a tonic, e. g., quassin, hydrastin, or capsicum—best with last two.

If in some of your nursing women the milk supply is low, have them drink a full glass of water just before nursing and another glassful while she is nursing. Doctor Alcom put me next to this, and it works like a charm. Keep it up. Also do not forget to give the woman a cleaning out. I have also noticed that calcium sulphide increases the supply of milk.

In vomiting of infants look to the binder: sometimes it is too tight.

In persistent toothache give a big dose of saline laxative, then give 3 granules of aconitine. Into the cavity of the tooth, after having cleaned it out with cotton and dried it, put a small plug of cotton dipped in phenol. Over this put a wad of dry cotton, then cover with collodion.

Large enemas (at least four quarts) have stopped some hysterical attacks. In most of these cases constipation was present, the bowels not having moved for several days.

O. Chas. Summerfield.

Chicago, Ill.

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[Some of these observations are new to us, especially the laxative action of calcium sulphide and its increasing the milk secretion. Have others observed these actions? Under what conditions?—Ed.]

"MAGGOTS" IN VOMITUS: A CASE OF MYIASIS

I was very much interested in reading your reply to Query 5629, "Maggots in Vomitus," in the October number of Clinical Medicine. I am enclosing herewith a reprint which considers this matter in a very satisfactory manner. Dr. Eugene F. McCampbell is located in our office building and I had the pleasure of examining the specimens reported. Within the past two weeks he has had (from Ohio) two more cases. It was my good fortune to see both. One specimen (there were of numerous larvæ) was passed *per rectum*. In the other case (a woman) the "maggots" were vomited. Dr. McCampbell kept the specimens of the latter case in water for several days. They were *very much alive*, good swimmers, and more than an eighth of an inch in length. This measurement does not include the tail, which was more than the length of the body. It was impossible to incubate them until they developed into adult flies.

Fred Fletcher.

Columbus, O.

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[Dr. Fletcher sends us a reprint of an article on "Myiasis Intestinalis Due to Infection with Three Species of Dipterous Larvæ," by Doctors E. F. McCampbell and H. J. Corper. This originally appeared in *The Journal of The American Medical Association*, October 9, 1909.

The authors say that infections of man by the larvæ of dipterous insects (myiasis) are very infrequent, though they have been known to occur since the early history of medicine. The insects may infect the skin and subcutaneous tissues, or they may invade the intestines.

They report a most interesting case, that of a woman, 72 years old, at the time of the report, who fifteen years before had had an attack of acute catarrhal gastritis, and had been under medical treatment almost continuously ever since.

At the age of 65 this woman began to pass "millions" of small green larvæ and a smaller number of white jointed ones. This attack lasted about a year, and during this time she became much emaciated. Since that time she passed these larvæ intermittently, much larger ones also being present. Attacks of nausea and vomiting occurred occasionally, but no larvæ were observed in the vomitus.

The woman lived on a farm and the surroundings were fairly sanitary, although manure piles and flies were abundant. Her weight at 65 was 180 pounds, but when seen by the reporting physician, at the age of 72, she weighed only 90 pounds. She complained of a constant aching pain in the abdomen, which was slightly distended and tender, and occasional colicky pains. She was constipated and used epsom salt almost constantly. The larvæ were found in a watery discharge, not in the usual stool. There was a mitral lesion and arteriosclerosis.

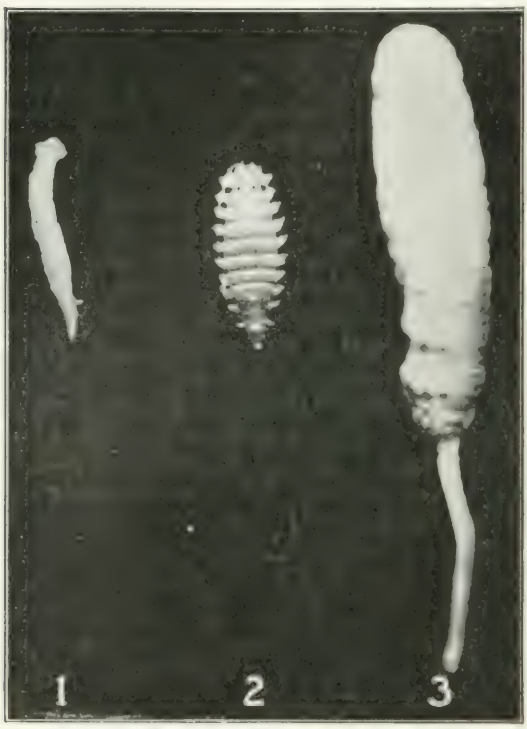
Many of the parasites were found in the stool of this patient and proved to be the larvæ of the following dipteræ: Anthomyia canicularis, the small black flower- or house-fly; musca domestica, the common house-fly; eristalis tenax, the drone- or flower-fly.

Of these, the larvæ of the anthomyia canicularis are said by the authors to be parasitic in man more frequently than any other dipterous insects. They have been noted in the intestines, ear, vagina and female urethra. About 30 cases have been reported, 25 being intestine-infections, and of the latter 5 were reported in the United States. The larvæ are elongated, "rounded posteriorly and narrow toward the anterior end," composed of ten segments, and 1 to 1.5 centimeters in length.

The eggs of the common house-fly (musca domestica) are deposited almost exclusively

in horse manure. The larvæ are white pointed maggots, 1 to 2 centimeters in length, and composed of nine or ten well-defined segments. There have been only five or six well-authenticated cases of human infection with this species.

The eristalis tenax, or drone-fly, is somewhat larger than the honey-bee. The larvæ



Larvæ isolated from case of Myiasis intestinalis: (1) Musca domestica; (2) anthomyia canicularis; (3) eristalis tenax

have a "rat-tailed" appearance, measure 2.5 to 3 centimeters in length, have seven segments, and there is a long, slender projection, 2 to 3 centimeters in length, from the posterior end of the body. This is the rarest of the parasites mentioned and no cases of myiasis due to it have been reported in the journals.

The accompanying picture shows these three varieties of larvæ.

The reader will observe that Dr. Fletcher, in his letter, states that Dr. McCampbell has recently had a case in which the "maggots" were vomited, the parasites being kept alive several days, being "very much alive" and "good swimmers." In this respect they were much like the maggots found by J. B., our CLINIC correspondent, which were still squirming and crawling thirty minutes after they were vomited. In these parasites, says J. B., "the head tapers to a point, the tip of which is black. The tail end is blunt." This agrees very well with the description (and picture) of the larvæ of the anthomyia canicularis—and that is probably what they were.

How these larvæ reach the alimentary canal is a question. In commenting on the query of J. B., we suggested the possibility of infection from the nasal cavities. Drs. McCampbell and Corper think that possibly their patient ate the eggs or newly hatched larvæ with food-materials. It hardly seems possible that these larvæ could resist the action of the digestive fluids, so long as stated, but possibly they might be ingested during a temporary arrest of gastrointestinal secretion and so secure a "foot-hold." In the McCampbell case they persisted in the intestine for seven years, apparently—almost incredible, it would seem.

Four theories are submitted for the persistence of the larvæ within the alimentary canal.

"1. Persistence of the larval state for from two to seven years. It must be assumed that very large numbers of eggs or very young larvæ were ingested, bearing in mind the number which have been passed. There is one case in the literature of twelve years' standing.

"2. The reproduction of the larvæ within the intestine. This would most easily account for the large numbers passed for a series of years.

"3. The completion of the cycle by the hatching of the larvæ into the adult parasitic fly (wingless) and the laying of eggs by these flies in the intestines. We have observed no adult flies or remnants in the excrement.

"4. The continued reinfection by the eating of eggs or larvæ or the deposition of eggs around the anus and their subsequent invasion of the intestine."

The first method (possibly the second) seems most probable to the authors.

The authors of this paper do not outline treatment, though they have made experiments with the digestive enzymes. On theoretical grounds, thorough cleaning out with cathartics, the stomach-tube and colonic lavage, possibly using an infusion of quassia in the latter, and following with santonin, thymol, atoxyl (or similar organic arsenics) or similar parasiticides, should be effective.

If any of our readers have had cases like these we shall appreciate reports.—ED.]

BOOK-PLATES

How many readers of CLINICAL MEDICINE are interested? Perhaps *you*, Doctor, may have an "ex libris," or possibly you are making a collection. In either case there are at least two members of our editorial cabinet who would be glad to exchange copies with you. Write us.

LOOK TO THE HEART

In these days of laboratory research and of instruments used for precise diagnosis the heart lesions are sometimes nelgected. Counting the pulse is an ancient custom with doctors, but I fear the younger generation may fail to get the full benefit of this old custom. The sounds are often noted and valvular lesions are looked after, but what I wish to call especial attention to is the continuous frequency or rapidity. This is the signal of danger.

Given a case in which the heart beats 120 to 140 times per minute and the condition continues for several days, there is danger of a funeral. You often can predict the result several days before death, although the patient may seem to be doing fairly well. The thermometer may indicate but little fever. The tongue may indicate digestion and assimilation normal—the bowels and kidneys acting fairly well—but if the heart continues its rapidity, do not give a favorable prognosis, and if with the excessive rapidity there is irregular action and an occasional stop followed by an increase in rapidity, you may expect a fatal result inside of three days. It does not matter so much what the lesion, whether it be pneumonia, rheumatism, flux, malaria, typhoid, or what not. This continuous rapidity indicates carditis, and carditis as a complication is always dangerous.

I have nothing new to offer for the treatment of heart lesions, but just thought it might be profitable to some reader to have his attention called to a danger-signal that he may have forgotten or never knew of. In making your diagnosis, prognosis or plan of treatment, *don't forget to take notice of the heart.* It is the most vital organ; the nerves depend upon its integrity, and all other organs besides—because when the heart fails there is no remedy.

Look to the heart.

W. P. HOWLE.

Charleston, Mo.

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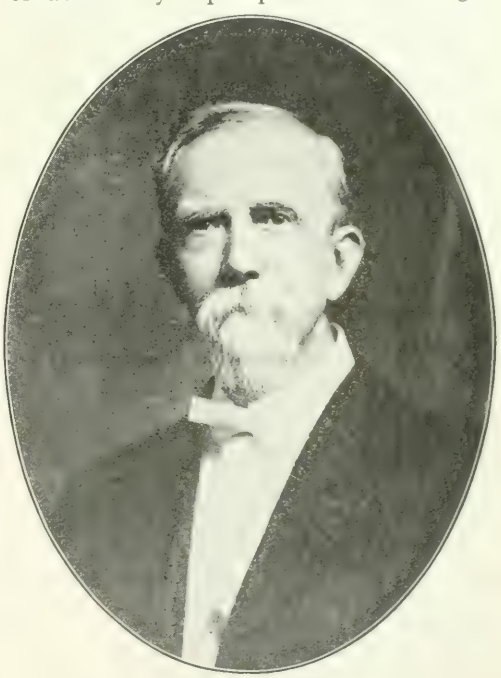
[Dr. Howle makes a good point, though he doesn't go quite far enough. When the doctor (any doctor) finds one of these cases of abnormally rapid pulse he should get



DR. W. P. HOWLE

busy at once—first of course to find out what the matter is. There isn't much satisfaction—to the patient—in predicting a funeral!

If the tachycardia is not associated with febrile disturbance, and is slow in making its appearance the physician will naturally

think of some heart lesion, with failing compensation. A careful examination should clear up the diagnosis. If such a case is treated reasonably early, with digitalin, sparteine, strophanthin, or other indicated remedies, the prognosis is not necessarily bad. Remember that rest in bed is (or should be) an essential part of the treatment and that it is just as important to keep the alimentary canal "right" and the nutrition at par as to give cardiac tonics. The clean-out, clean-up and keep-clean policy should be practised here—just as in treating acute diseases. Keep down the quantity of liquids.

Don't forget that tobacco sometimes causes tachycardia.

There are many nervous individuals who have a habitually rapid pulse—especially the hysteric ones. They fool the best of us sometimes. In these cases atropine or hyoscyamine sometimes acts beautifully. In this connection always think of exophthalmic goiter, in which neither the goiter nor the exophthalmos is necessarily prominent. Some of these cases are being cured by chromium sulphate, while there are many reports of success with quinine hydrobromide and ergotin in good-sized doses—following the plan of Forchheimer.

Occurring during the course of a febrile disease rapidity of pulse is to be expected, but when the pulse shows a tendency to "run away"—to get fast and at the same time feeble, it is well to observe the doctor's warning. In such cases we can often guard it better by conserving its strength rather than by whipping it up. Get the blood to the surface. Keep the surface of the body warm. The "trinity" combination of aconitine, strychnine arsenate and digitalin sometimes does its very best services in just such cases. In emergencies use glonoin, supported by atropine and strychnine arsenate. If the urinary output is low, sparteine is an excellent remedy. Again remember that the heart weakness is *usually* due to the continuous action of some poison on the heart. *Fight the poison!*

Abnormally slow pulse is sometimes as bad a portent as the abnormally rapid one. It, too, may betoken heart degeneration—myocarditis. Such a heart can only be harmed by stimulation. The two primal indications are *rest* and *elimination.*

Almost any form of autotoxemia may cause slow pulse, the typical illustration being the bradycardia due to absorption of bile, as in jaundice or cirrhosis of liver. We see a similar slowness in the socalled Stokes-Adams syndrome, also in some cerebral irritations or central nervous diseases.

Again—elimination! How that word does confront us everywhere? Almost every disease, of whatever organ, seems to be but a mask for autotoxemia in one of its myriad forms. "Clean out, clean up and keep clean!"—ED.]

GREAT OPPORTUNITIES FOR PHYSICIANS IN THE FOREIGN FIELD

While so many of our young physicians (and older ones, too) are complaining about the difficulty in finding good locations where they can make both ends meet and accumulate something for old age, there is a constant cry going out for help in the foreign fields. In the United States there is one physician to every 570 people, while in many other parts of the world there are whole regions without a hospital and millions must suffer and die without scientific care or skill.

The amount of work handled by some of our medical missionaries is simply enormous. It embraces practically every variety of ailment to which human flesh is heir. The young missionary physician finds ample opportunity for the most varied kinds of surgical as well as the most exacting kinds of medical and special practice.

The medical missionary and the trained nurse, however, are needed on the foreign field not only in their professional capacity, but because they are able to overcome prejudice, to open doors for the message of Christ and to incarnate that message in a way which is absolutely superior to that of the preacher or the teacher. There is a language which the whole human race can understand and which carries a message that every one, sooner or later, desires to hear. The medical missionary is master of this unspoken tongue of the heart. He is welcome to the home of the stranger. The fanatic Mohammedan allows him in the

innermost harem; the Mandarin calls him to his palace and the Brahmin leads him into his home. For the Christian physician and the trained nurse there is no chance to invest life that can compare for a moment in influence and power with that on the mission field.

Right now we are informed that different missionary societies are calling for more than fifty men and women and twenty-six trained nurses. Four hundred hospitals and 783 dispensaries have already been established in the missionary territory, from Greenland to India, and these institutions care for six million out-patients.

Physicians are needed immediately, we are informed, in China, Persia, India, Arabia, Mexico, Africa, Turkey, the Soudan and Philippine Islands. We have in hand a list of more than thirty-five openings sent us by Mr. Wilber D. Smith, secretary of the Student Volunteer Movement for Foreign Missions. Among our readers are doubtless hundreds of young men who have an intense interest in work of this kind. We urge them to consider this movement and to communicate with Mr. Smith, whose address is 125 East 27th St., New York City, N. Y.

WAS IT TETANUS?

Inasmuch as unquestionably great benefit is derived from the publication, by physicians, of their personal observations and results in the treatment of disease, my own personal experience in an unusual case may not be without interest.

Miss J. D., age 11 years, school-girl living on a farm, stepped on a nail about the second week in June. The wound healing nicely, seemed to close the incident favorably. However, on July 26 the girl was seized with a severe headache, stiffness of the neck, rigidity of all the body-muscles, vomiting, rapid pulse, fever, loss of speech (due to set jaws), and a swollen painful left leg and foot. The condition becoming worse, Dr. L. was summoned the following day, and being nonplussed he called upon Dr. K. to consult with him on the case the next day. After seeing the patient Dr. K. pronounced it a case of lockjaw. (Since Dr. K. has lost one of his own children by tetanus, his diagnosis is of special value.) He incised the plantar surface of the left foot deep over the point of the original punctured wound and obtained some pus. After the foot was surgically dressed, the patient was placed on the following treatment: Enteroclysis of normal saline solution frequently; hot com-

Dr. A. J. Beyer, Carroll, Ill.

presses; 1-10 grain of elaterium every hour, which, by the way, was conspicuous by its inaction, even after twenty such doses had been given. Within a few hours the child was much improved, the muscles relaxed, and she partook of some food.

At 4:30 the next morning muscular rigidity and trismus again set in. Dr. K., giving a negative prognosis as to life, said that he would rather be released from the case, since he could do no more for the patient. At this time I was called upon to see the patient.

Arriving at the bedside at 10 a. m., July 30, 1910, I found the condition of the patient as follows: Consciousness; dilated pupils; trismus; speechlessness; sardonic grin; froth between set teeth; abdominal muscles hard as a board; fifteen to twenty rose-colored

spots on the abdomen; swollen, hot left leg, with foot surgically dressed; perspiration; pulse 140, tense, full and bounding; temperature, 99.2° F. in the axilla.

A trained nurse being in attendance, with Dr. L. present, I cauterized the wound with 1 : 100 corrosive-sublimate solution, then packed it loosely with gauze saturated with the same solution, and dressed the entire foot with a bandage kept moist with 1 : 1000 sublimate solution.

For internal and hypodermic administration I left the following: A hypodermic, every hour till muscles would relax, consisting of hyoscyamine, crystallized alkaloid, gr. 1-1000, and cicutine hydrobromide, gr. 1-67; and, with the first two doses, pilocarpine nitrate, gr. 1-67. As soon as possible, every half hour, calomel, podophyllin and bilein compound tablet (calomel gr. 1-6, podophyllin gr. 1-6 and bilein gr. 1-8) till six were given, and elaterin, 1-6 grain, with the first two doses. As to result, slight bowel movement at 3 p. m., and a copious watery stool at 6 p. m. Muscles relaxed by 4:30 p. m. Patient talked and partook of food, and slept from 11 p. m. to 2 a. m. next morning, when the hourly doses of the hyoscyamine and cicutine hydrobromide were resumed, given by mouth, and continued till 9 p. m., then every two hours during the night. Copious evacuations this day at 6 and 8 a. m. and at 4 and 8 p. m. At 7 p. m. Dr. L. injected 5000 units of antitetanic serum, which caused a rise in temperature to 101° F. and of the pulse to 96.

August 1 I again saw the patient and this time she was in very good condition, but nevertheless orders were given that the hyoscyamine and cicutine be continued every hour during the day and every two hours during the night unless the patient's pupils should dilate excessively. August 2 and 3 practically the same mode of treatment was continued. The calomel, podophyllin and bilein compound with 1-6 grain of elaterin were given daily to keep the bowels active. August 4 the hyoscyamine and cicutine were administered less often, and directions given to continue the same every three or four hours for the week, and longer, to make sure that no relapse of the spasms occurred.

You may ask why were the hyoscyamine and the cicutine hydrobromide preferred in this case. This was my reason, and no other: Both drugs are sedative and relaxant to the cerebrospinal system; the pilocarpine aids nature in eliminating through the skin as much as possible; the active catharsis eliminates. Thus altogether the chance of recovery was enhanced.

The properties both of hyoscyamine and of cicutine hydrobromide had been utilized by me, with excellent result, about one year previously in a severe case of cerebrospinal meningitis of an infant, hence my conjecture that what was good in the first case of cerebrospinal meningitis might prove good in another one where a similar condition was present in the cerebrospinal system.

Now, here is one for the neck-chain-tied-to-swivel-pole-and-trot-in-circle-skeptic. The antitetanic serum did it? Then why didn't the antitetanic serum do it in the case of a boy nine years old, who also had this disease at the same time and was treated by the most advanced scientific methods, i. e., serum-therapy, chloretone and the like, and by a man who stands second to none as surgeon? But the poor boy did not have vitality enough to come out alive and died about eight days from the time he received the first "scientifics." The scientific method will prove effective exactly in proportion as common horse-sense is mixed with it. There, now!

A. J. Beyer.

Carroll, Ia.

[Sometimes the patient dies because the name of the disease scares the life out of patient and doctor. I have records of more than one case of "hydrophobia" where the doctor forgot the terror of the name, went to work on the symptoms with modern weapons and won a cure. Did he cure hydrophobia? He cured something that had been so diagnosed. So Dr. Beyer cured something at least very like tetanus. Next time you have a case of either just shut up about the name and go to work—you may also strike one of those cases that "must have-been-something-else-since-it-got-well."

Meanwhile note that sedation by remedies far exceeding the old galenic trash and toxin-

elimination by modern depurants, were the means that won Beyer's success. We claim better results, but we use better means, and our methods are strictly in accord with modern pathology.—Ed.]

PERPETUAL MOTION!

A visiting friend had just given a penny to each of the children in the family and complimented them upon the vast wealth they had in their savings-bank.

"Oh, yes," chirped little Jessie. "Every time we take our castor oil without crying mamma gives us a penny."

"And what do you do with all the money?" the visitor wanted to know.

"Mamma buys more castor oil with it."

A NUMBER OF CORRECTIONS

We regret that in recent numbers of Clinical Medicine, errors have unfortunately been allowed to creep in. For instance, on page 968 of the October Clinic, under the heading: "An Outline of Successful Treatment," a sentence in Dr. Standard's article on Typhoid Fever reads as follows: "When there is considerable elevation of temperature I use aconitine, in teaspoonful doses every half hour to two hours, as needed." A *solution* of the aconitine containing the proper dosage is, of course, referred to.

In the article on "Quinine Idiosyncrasy," on page 1121 of the October issue, in the fifth and sixth lines, the author is made to say: "I gave her the arsenates of iron, quinine and strychnine with nuclein, four granules three times a day." It should have read: "One granule four tines a day." The reaction of the minute dose, of course, shows the striking character of the quinine idiosyncrasy.

Also in the November number, in the article by Dr. C. A. S. Sims, page 1237, in the third line of the fifth paragraph, the text reads: "Bryonin, 1-67 grain, 1 granule," when it should have read "24 granules;" in the following line the saccharin should be 1-6 grain, not 1-8; in the second line below the picture the dioscorein should be 1-6, not 1-8; then on page 1238, the fourth line from the top the text reads: "Until about 8 granules are taken," which should read, "until 6, etc." Further down in this same column, in the third paragraph, instead of "Directions: One tablespoonful every hour," read "One teaspoonful every hour." In the third line from the bottom, same column, the text reads "physiological suggestion, etc.," when it should read, "psychological."

We want to urge our readers, at least every one who preserves his copies of the Clinic, to take his pen and see that these errors are corrected. Of course we cannot expect to make Clinical Medicine mistake-proof, but we should do better than this, and will do so hereafter.

NEGUNDIUM AMERICANUM. MAGNESIUM SULPHATE. ANTITOXIN. COLLECTIONS

May I reply briefly to the editorial comment on my article, printed on page 1007 of the September number of Clinical Medicine?

Negundium americanum is box elder.

I received my ideas with reference to magnesium sulphate from the writings of Dr. Wm. H. Burgess of Chattanooga, Tenn. He claims that the magnesium drops its sulphur and takes carbon from toxins which always contain carbon.

The statistics of diphtheria of the times before and after the introduction of antitoxin have been grossly misrepresented to help the sale of antitoxin. The great manufacturers are making money out of its sale and of course don't want the medical profession to think that the antiseptic that they add to preserve antitoxin has even a share in the good that antitoxin does, but when the same amount of antiseptic is dissolved in pure water instead of serum and injected hypodermically it does have much of the same effect as antitoxin.

Every doctor having poor-pay patients will find that he can get more money out of them by making them pay spot cash to buy medicines than he can to give credit, as most patients imagine that doctors are making entirely too much money. They are anxious to have the doctor furnish medi-

cine on credit. Tell them that the medicine will cost one dollar or just what you want to make out of the case, that you haven't the medicine on hand and can't spare the money to send for it or buy it for them. Then when they actually pay, go ahead and get the medicine for them. It's simply a case of striking while the iron is hot. I've made good money out of families that had beaten every other doctor in the country and they thought I was smart because they couldn't cheat me.

F. POLLARD

Fresno, Cal.

[Thank you, Doctor, for the information about negundium, and for the citation to Dr. Burgess's work, with which we are quite familiar.

We must dissent again from your views relative to diphtheria antitoxin. The assertion that this remedy owes its efficiency to the antiseptics it contains is a very old one, but it has no scientific foundation. We had antiseptics in preantitoxic days, and they were administered in every conceivable way, yet the mortality did not diminish. There are few medical facts more firmly established than the value of this antitoxin.

Your suggestion that a much larger percentage of patients can and should pay "spot cash" is "dead right." The notorious business laxity of the average doctor makes him easy "meat" for almost every deadbeat. If we conduct our *business* in a clean, business-like way we shall be more respected. —ED.]

"AN EXPRESSION OF APPRECIATION"

As a facetious friend put it, I was "foolish enough to run for mayor of this city, and unfortunate enough to be elected," and as it was on a mild sort of reform movement, there has been not a little to do to "make good." Thus your letter, asking for "an expression of appreciation," was mislaid and only came to light while I was cleaning my desk today. However, I trust the expression I send will be appreciated all the more because of the delay.

Every number of THE CLINIC, from the first issue, is in my library, and also the subsequent, *i. e.*, rebaptized, issues, although I have never quite forgiven you for changing the name—sort o' like having old landmarks changed, you know.

This magazine has been a whole education to me, medically speaking, and the only trouble with it is that it makes trouble in the family, as it is the only magazine that my good wife and I "scrap" over, as to which shall read it first.

F. A. WALTERS.

Stevens Point, Wis.

HELPING HIM WONDERFULLY

THE AMERICAN JOURNAL OF CLINICAL MEDICINE has helped me wonderfully. I am gaining in my work practically every day; I am curing cases which I know I could not have cured without the knowledge gained from your journal; hence I feel it my duty to add my little mite when requested.

W. W. COX.

Harrold, Tex.

A HINT FOR THE HOLIDAYS

When doctors (and doctors' wives) buy books, why do they not think of the stories, poems and other literary gems which brother practicians are turning out?

Take Dr. Daniel's "Dr. Bruno," for instance. This is one of the most thoughtful and yet fascinating stories that I have ever read. I remember that when I got hold of a copy a couple of years ago it held me the best part of a long winter night. I would like to read it again—yes, I'm going to read it again, and I advise every member of the family to send Dr. F. E. Daniel (Austin, Texas—Daniel of the "Red Back") a dollar and a half for a copy. (If the Doctor doesn't do it, Mrs. Doctor, *you* send in the money.) I am going to tell you something more about the book, one of these days but get it now.

A present for Madam, did I hear you say? Send a dollar to P. F. Volland & Co., this city, for a copy of Dr. George F. Butler's "Sonnets of the Heart." An exquisite thing—the beauty of the verse almost equalled by the artistic charm of the setting.

CLINICAL MEDICINE
POST-GRADUATE SCHOOL of THERAPEUTICS

George F. Butler, A. M., M. D., Director
Thomas J. Mays, M. D.
C. S. Nelswanger, M. D.
C. E. de M. Sajous, M. D.
William F. Waugh, A. M., M. D.
Alfred S. Burdick, A. B., M. D.

PART III.—LESSON FIFTEEN

DISEASES OF THE STOMACH

GENERAL CONSIDERATIONS

Indigestion.—There is no more common disturbance than imperfect digestion, and it is by no means easy to frame a definition at once precise and accurate, which will include all forms of this trouble. We know little or nothing of its morbid anatomy. It is absurd to speak of it as an affection of the stomach, for in many cases all parts of the alimentary canal and even of the secreting glands connected with it are affected. In what was called nervous dyspepsia the disturbance of functions is not in the abdominal viscera, but in the higher nerve-centers.

For practical purposes, two great classes of dyspepsias, socalled, may be recognized. One in which there is a deficient secretion of gastric juice, amounting sometimes almost to suppression; the other, in which there is an excessive acid in the stomach, due either to hypersecretion or to fermentation of the food-constituents and the consequent formation of lactic, butyric and acetic acid. There is still another, although rarer, form in which the food is retained but a short time in the stomach, it passing rapidly through the pyloric orifice into the intestines, where it excites peristaltic action and gives rise to a copious evacuation immediately following each meal.

Practically, dyspepsia has its origin either in an imperfect amount of gastric juice or in an inferior quality of the secretion whose solvent properties are impaired. Without resorting to the laboratory, it is, and must be, a difficult matter to settle which of these pathological states of the gastric secretion obtains. But one thing is certain, indigestion of some form or other is almost universal among civilized people, not one in a hundred being entirely free from this ailment.

Indigestion and Diet.—No medical skill can effect a permanent cure of dyspepsia, socalled, unless a diet can be devised which will meet the needs of the patient in the way of nourishment without at the same time overtaxing the digestive powers.

Sometimes the appetite is perverted and must be trained into normal channels. Fasting, judiciously undertaken, is one of the best means for doing this. Such a fast, in a properly selected case, is a good preliminary to a radical change of diet.

Digestion is a chemical process, and the digestive fluids are prepared from the blood, so that we cannot have digestive secretions of high power unless the diet is well balanced. For instance, a diet which does not contain sufficient proteids will not furnish an active gastric juice, and flatulence is the natural result. A one-sided diet is one in which

some single element unduly predominates, as, for instance, when it consists of too much starchy matter, as when potatoes, beans and peas are the three vegetables served at one meal; or when the food contains too little proteid, or, perhaps, is lacking in the different salts required by the tissues, and which are contained in green vegetables; or when consisting relatively of too much fruit.

The proteid substances rank first in importance as articles of diet, and milk (new or skimmed), buttermilk, cheese, eggs, lean beef, chicken, fish, oatmeal, wheat, many of the nuts, and predominantly peanuts (and peanut butter), are especially rich in these nitrogenous elements. Dr. Haig, he of uric-acid fame, has calculated that man weighing 140 pounds will require 1260 grains of proteid per day; if actively employed an extra allowance of 200 grains should be made. Tables have been compiled showing the percentage of proteids in the various articles of food.

Those who find difficulty in taking the necessary amount of food should persevere, adding a little more from time to time until the digestive organs are once more able to manage food in proper quantities and proportion. Strength is derived from food and conserved by good habits. No man can be well until he learns how to eat, and trains his digestive organs to take and dispose of food in quantities to make good the regular waste and furnish energy to run the machine.

Fallacy of Starvation Theory.—The idea, that the less one eats the better, is a doctrine of despair, arrived at by sufferers who have been the victims of ill-directed experiments. Their minds must be disabused of this notion before progress can be made. A man should never go to bed hungry; but neither should he ever eat from habit alone, in the face of positive disinclination. When appetite is lacking at the proper times, go out into the open air and hunt for one. Increase of energy is a sign of improved nutrition. The patient is not in a satisfactory state until this sign is noticed, even though the scales show an increase of weight.

Fruit, as a rule, should be eaten apart from meals. Fruit is of great value in certain diatheses, as, for instance, the uric acid and scorbutic; it agrees well with persons of the bilious and lymphatic temperaments. In the dyspeptic, fruit often causes flatulence, and its place is well taken by green vegetables and tubers, when properly cooked. The alkaline salts contained in these vegetables are of much value in "purifying the blood."

All food should be chewed fine and thoroughly moistened with saliva. Flesh foods are not so good for dyspeptics. Bread is made more digestible by toasting.

Patients suffering from dyspepsia are very apt to treat themselves, cutting off one article of diet after another, but often without success, and in this way reduce their nutrition and diminish their strength without adding to their comfort.

Some of the Symptoms.—The constant irritation which these sufferers from dyspepsia experience from discomfort or pain is apt to lessen their power of attending to other things, so that they lose interest in outside affairs and have less power of attention, and are tempted to concentrate their thoughts upon themselves. When they attempt to read or think they feel dull and heavy and they either do not comprehend as readily or remember as distinctly as they did when well. Moreover, they are likely to become irritable, snappish, such fits of irritability often alternating with a feeling of depression and languor. Sometimes they also complain of singing in the ears or of giddiness and a tendency to fall. These symptoms, however, are more frequent in elderly people and probably are associated to a considerable extent with atheroma. When they occur in younger persons free from organic disease, they are more suggestive of tobacco smoking.

How and How Not to Eat.—In the treatment of disorders of digestion, it is important to lay down rules for the patient as to when food should be eaten, how it should be eaten, and what should be eaten.

The general experience of mankind shows that four or five hours should intervene between meals; but under certain conditions it is advisable to have something to eat as often as every two hours. In fever, when the waste of the body is great, every two hours

is the time usually suitable for the administration of food. However, when given at such frequent intervals, the food must be taken in small quantity, lest indigestion result.

As to the manner of eating, the patient must understand that he should eat slowly, and at all times thoroughly masticate and insalivate his food before swallowing it. Hurry at meals, says Lauder Brunton, is a frequent cause of dyspepsia, and worry or mental exertion immediately after meals is another. In dyspepsia a certain time should be allowed between the meal and the return to work, whether bodily or mental.

Rest before eating is also an important factor, especially rest just a few minutes before the evening meal, whether it be called dinner or supper; for this is the time in which the body in general and the stomach in particular are likely to be exhausted.

Liquids at the Meals.—Much fluid at a meal, by diluting the saliva and the gastric juice, is disadvantageous. It is not so injurious when taken immediately after the meal; still, an hour before meals is better, and the best form in which it can be taken in hot water. By drinking a tumblerful of hot water an hour or so before eating, not only are the remnants of the previous meal washed out of the stomach, but, also, much of the water becomes absorbed. This prevents thirst, obviates the necessity for drinking at meals, while, instead of the gastric juice being diluted by the water which would then be drunk and digestion thereby retarded, the water already absorbed makes possible the free secretion of saliva and gastric juice, and thus accelerates digestion.

There is an exception to the foregoing rule, though. If the stomach is actually dilated, and especially if this be due to pyloric obstruction, water, even if hot, will remain in the stomach for more than an hour after ingestion, and instead of accelerating digestion it will interfere with it. In such cases the long interval which usually elapses between the evening meal and breakfast may allow the stomach to become empty, so that breakfast may be eaten with relish and digested with comfort. But under such conditions a tumbler of water, either hot or cold, taken on rising (being retained) may delay digestion and do more harm than good.

Relation of Proteid to Carbohydrate Rations.—The experience of mankind has shown it to be advisable, to a certain extent, to separate the proteid from the farinaceous meals. Thus it is a very common practice, at any rate among English-speaking people, to have a farinaceous meal with a small quantity of proteid for breakfast; a proteid meal at luncheon; a very little farinaceous food in the afternoon; and again a proteid meal in the evening. Thus, we find that at breakfast bread and toast with some easily digested proteid, such as egg or fish, is very commonly taken; or a small quantity of a sparingly digestible proteid, such as fried bacon, of which the hydrocarbonaceous fat frequently forms a large portion. At lunch the main part of the meal should consist of meat, although a moderate quantity of bread or vegetables may be taken with it. The afternoon meal should consist of a little bread and butter, and in the evening there should follow another proteid meal like that of lunch. In cases of dyspepsia it is often useful to separate the proteids from the farinaceous foods more completely, inasmuch as the time for digestion of the two is different, while the portions of the digestive tract in which digestion of the two kinds of food takes place also differ.

A dyspeptic patient's *breakfast* should consist, predominantly, of dried toast, rusks or stale bread, with a very little butter, the latter of the very best quality. If the digestion be very bad, the bread may have some hot milk poured upon it and be eaten in this way without butter. Still, ordinarily more milk, either warm or cold, may be taken with the toast, many people being able, without injury, to take with the milk sufficient tea, coffee or cocoa to flavor it. If the stomach be able to bear it, a soft-boiled egg or a piece of fish may be added.

The *midday meal* should consist chiefly of proteid food, such as fish, fowl, eggs or meat, together with some stale bread. One of the most readily digested fishes is boiled whiting, for its fiber is very soft and easily disintegrated. Codfish also is good, but it is somewhat harder and requires more careful mastication. Boiled or broiled sole

is excellent; but if the sole be fried, the skin must be carefully removed, as well as the bones. Sauces, containing as they do fluid fats, are apt to disagree; it is safer to take the fish simply with salt and stale bread. In many cases it is better to spread a little good butter upon the bread and take that with the fish than to use sauce or melted butter. In the same way fowl may be eaten with stale bread. In some cases eggs in the form of omelet are tolerated, but quite as frequently eggs are liable to cause biliousness. A chop or steak sometimes suits well, provided the same be thoroughly masticated and all the stringy parts rejected.

As already stated, it is best to drink a glass of hot water an hour before meals, but sometimes dyspeptics cannot or will not do this. Such persons may be allowed half a tumbler of water, this to be sipped after the lunch is over. Effervescent water to many persons is more palatable and more stimulating than plain water; and it may be used provided it does not give rise to flatulent distension, as in many instances it does. As a rule, wines and beers do not agree well with dyspeptics.

For the *afternoon lunch*, hot water may be drank again, flavored by a piece of lemon floated upon it; and a small piece of bread or biscuit may be taken with it. Weak tea is more palatable, or milk and water, and if found not to disagree, either the weak tea, or the milk flavored with tea, may be used in the place of hot water.

For the *evening meal*, at 7 or 7:30, food similar to that of the luncheon should be taken.

After the digestive difficulty is less severe, the patient may return to a more ordinary diet, mixing the proteid and farinaceous foods in larger quantity.

Care must be taken by all dyspeptics to avoid an excess of sugar, which is very apt to create acidity. A good general rule also is to reject skins and bones, and all strings, stones and seeds. The bones of fish and the chips of bone that occasionally occur in curry or hash act as irritants, while skins of every kind, whether of fish, fowl, fruit or vegetable, are indigestible. All such articles should be avoided, although not infrequently coarse substances are rendered acceptable by passing them through a fine-set chopper.

About Mastication.—An excellent rule is that of the late Sir Andrew Clark of England. The mouth contains, or ought to contain, thirty-two teeth, and to every mouthful of food thirty-two bites should be given. If the teeth are imperfect, even this number is not sufficient, and as many as sixty-four or ninety-six bites may be required to comminute properly a single morsel of meat. In other words, the Fletcherizing of food is unquestionably of value. Of course, this thing can be overdone.

Another rule which is sometimes of great service in dyspepsia is to insist that before the food is swallowed it should be so finely masticated and so thoroughly mixed with saliva that it shall be of the consistence of cream and would pass through a sieve without leaving a residue. It is, however, very much easier to insist upon such procedure than to have it carried out, and it is only in very severe cases, and especially those where the pain is so great as to suggest the presence of gastric ulcer, that patients will do so. Indeed, they often find the rule so troublesome that mere discomfort from their trouble will not suffice to make obey, doing so only when suffering severe pain, and learning by experience that obedience will prevent these attacks, while neglect causes them to return.

Keeping the Body Warm.—Dyspepsia often results from undue exposure. There are four places on the person that require special warmth, namely, the back of the neck, the front of the abdomen, the shins, and the feet. Many persons, after sitting in the draught which always exists in cold weather between the door and the fireplace, radiator or stove, will suffer from dyspepsia, and then wonder what article of food has disagreed with them. This draught should be carefully avoided by raising the feet above the level or by sitting outside the influence of these cool air currents. Thick boots, especially boots with cork soles, woolen stockings, and gaiters of cloth or leather protect the legs and feet from cold; and warmth to the back of the neck may be afforded by a muffler or high collar.

Support of the Abdomen Useful.—Another aid of great importance in cases of dyspepsia is an apron of chamois leather and flannel, or a belt around the abdomen, which should be worn in such a way as to give both warmth and support; support, in fact, is especially needful in those cases where the abdominal muscles are lax and the belly is pendulous. The commonest kind of belt is made either of flannel or of knitted wool; but a silk scarf is perhaps a little more comfortable. If should be long enough to go three times around the body, and it may be put on with any comfortable degree of tightness. In cases of floating kidney the belt may be provided with a pad or truss.

Importance of Rest, Physical and Mental.—It is important to avoid, as far as possible, fatigue before the repast, and also to get rid of all worry or thoughts about business during meals. Some people damage their digestion by walking from their work with the notion of getting an appetite. The extra labor caused by this finishes up the patient already exhausted by his daily work, and lessens the digestive powers still more. Twenty minutes of rest, at least, after getting home is a useful restorative and is advisable for dyspeptics, especially for patients at or above middle age. On the other hand, if his occupation be of a harassing and anxious kind, it is sometimes useful for the patient to walk home instead of driving, thus possibly getting rid of his anxiety and worry by this exercise, provided it is not too exacting. If rest can be taken on arriving home, the disadvantage caused by the extra bodily work in such instances may be more than compensated by the mental relief.

After the meal is over, rest is required both for body and mind; and active exertion, either bodily or mental, is injurious; it is distinctly advisable to rest (better taking a nap) half an hour or more if possible. During this time pleasant conversation or light reading or a pipe may divert the mind from care.

Drugs that Are Serviceable.—The medicines that have been employed in the treatment of dyspepsia and other stomach disorders are almost innumerable; they may, however, be divided into a few classes. First there are those that stimulate the secretion and movements of the stomach. Second, those which by their local action have a sedative action on the stomach. Third, those which act upon the general nervous system. Fourth, those which supply digestive material. Fifth, those which lessen abnormal decomposition; and sixth, those which aid in elimination.

Among those remedies which directly stimulate the stomach, one of the best is *sodium bicarbonate*. This should be given fifteen, twenty or thirty minutes before meals, and, I think, it may be combined advantageously with some bitter.

Another exceedingly useful stimulant is *rhubarb*. The old-fashioned plan which makes the patient chew his stick of rhubarb, in which he got a solution of its active principles in the alkaline saliva, is a good one, but many persons dislike this way of taking it and prefer the rhubarb swallowed at a gulp, with an alkali taken before meals.

Sodoxylin is another excellent remedy, when an alkali is required. An old combination, yet a very good one, is bismuth subnitrate (or the carbonate), 5 grains; sodium bicarbonate, 5 grains; pulverized rhubarb, 1 grain; pulverized nux vomica, 1-2 grain; pulverized cinnamon, 1 1-2 grains. This powder is to be dispensed in a cachet, two such cachets to be taken with a mouthful of water three times a day, twenty minutes before meals. Of course double the foregoing amount may be put into one large-sized cachet so as to contain 10 grains each of the soda and bismuth, while also the proportions of the several ingredients may be increased or diminished. Thus, if for instance the quantity of rhubarb in the above formula causes the bowels to move too freely it may be lessened as required.

A great deal has been written lately about the uselessness of vegetable bitters and possibly their utility has been exaggerated. Nevertheless, in many cases they certainly seem to be productive of great benefit.

In cases of *atonic dyspepsia*, such as we see ordinarily in hospital patients who complain of much flatulence, and who present a certain definite group of symptoms, quassin and the triple arsenates, given before meals, frequently appear to be more beneficial than the alkalis. The group of symptoms in the condition named, consists of a

pale, flabby tongue, furred on the dorsum and marked with teeth at the edges; pain in the epigastrium, striking through between the shoulder-blades; much gas in the stomach; flushes of heat; black specks before the eyes; and pain at the top of the head. Here, if constipation be present, an effervescent saline laxative in the morning greatly assists the action of the triple arsenates and quassin.

In *irritable dyspepsia*, bismuth is one of our most useful remedies. It may be given in the form of a powder. But some patients object to powders and prefer the liquor of bismuth, which may be given in doses of 1-2 to 1 dram, with some aromatic spirit of ammonia and a carminative water. The subnitrate of bismuth does not go very well with sodium bicarbonate in an aqueous mixture, as decomposition occurs, with the formation of carbonate of bismuth, nitrate of sodium, and evolution of carbon dioxide gas, which, if the quantity of bismuth be large, may be so great as either to blow the cork out of the bottle or even to burst the bottle itself. However, if the reaction is allowed to complete itself in the mortar, before the mixture is bottled by the pharmacist, this difficulty is obviated.

When much pain is associated with the taking of food, 20 or 30 minims of the compound tincture of camphor may be added to the bismuth mixture with great advantage. When there is great pain and acidity after meals, it may be relieved by dissolving a teaspoonful of sodoxylin in water and sipping this with a spoon until the pain is relieved. This, of course, is but a palliative measure, but it gives relief at the time.

Among the drugs which assist the function of digestion through their influence on the nervous system, the foremost place must be yielded to strychnine. Strychnine is a most useful adjunct to antidyspeptic remedies in most cases of feeble digestion.

Among those substances which are used to supply digesting material, the most important are hydrochloric acid and pepsin, to which, perhaps, rennet should be added. A solution of 10 minims of dilute hydrochloric acid or of dilute nitrohydrochloric acid appears to assist digestion in many instances where only the acid secretion is deficient. It is frequently given with a bitter shortly before meals, as then it seems to stimulate the appetite; but it may also be given immediately after meals, with only strychnine or with the further addition of pepsin.

In some cases rennet appears to be deficient in the gastric juice. The exact purpose of this ferment in ordinary digestion has not yet been ascertained; but that it has some important function there seems little doubt.

Among the remedies which tend to prevent *fermentation*, one of the best is the combination of the three sulphocarbolates. *Creosote* has a similar action, so also has oil of cassia. For preventing decomposition in the intestines and flatulent distension, the sulphocarbolates prove very efficient.

The accumulation of fecal matter in the intestines must be prevented, and the *bowels must be kept regular* by means of purgatives. Either the anticonstipation pill, or if there is a sluggish action of the bowel, calomel, bilein and podophyllin followed by saline laxative, can be employed with advantage. The unloading of the liver is a very important matter. The mode of action of calomel, podophyllin and bilein upon the liver is not perhaps, thoroughly understood, but clinical experience has left in me no doubt whatever that it is of the greatest use in relieving many of the symptoms of dyspepsia.

The pains to which I have alluded as probably dependent upon adhesions of the intestine, and occurring in gouty or rheumatic subjects, are well treated by salithia, sulphocarbolates, and sodoxylin. Although they may be increased by irritating articles of diet, such as nuts, figs and the like indigestible substances, yet diet does not exercise nearly as much influence over them as do exposure to cold, indulgence in acid wines, or any other excess that brings on an attack of gout or rheumatism.

In treating cases of indigestion or its consequences due to *injurious mental influences*, the depressing cause must be removed if possible. If this cannot be done then change of air and scene, and exercise short of fatigue and in the open air, are serviceable. Potassium bromide either alone or combined with ammonium bromide, is useful both in lessen-

ing the sensibility of the nervous system to worry, and in producing sleep.

It is sometimes difficult to distinguish between depression that may be called purely mental, and a depression due to physical causes. *Mental depression* may be due to disorders of the liver, but also to trouble of the genital organs. These are apt to give rise to mental depression and to digestive derangement. It is difficult to say whether the genital troubles give rise to mental depression through the medium of the digestive system, or whether they disturb the digestion through the emotions. At all events, dyspepsia due to uterine and other genital disturbances is not to be overlooked.

Uterine dyspepsia presents the usual symptoms of nervous dyspepsia; epigastric pain, acid eructations, and sometimes vomiting after meals. The bowels are not unfrequently much constipated. Here also the first thing to do is to remedy, if possible, the condition of the uterus, next to lessening the nervous excitability by bromides or other sedatives, and to clear out the intestines by means of purgatives and to keep them clean with the sulphocarbolates.

We are sometimes too much inclined to regard digestion as a process which goes on in the intestinal canal only, and to forget how very intimately this phenomenon is related to the other functions of the body. But we cannot either rightly understand the pathology of indigestion or the action of remedies, unless we constantly bear in mind the intimate relation which exists between the alimentary canal and the rest of the body.

GEORGE F. BUTLER.

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ALCOHOLIC AND OTHER BEVERAGES AND GASTRIC DISEASE

Alcohol.—Nobody doubts that alcoholic liquids taken before meals arouse the appetite and more food is taken than without the stimulant. Soon, very soon, the habit is formed, and the meal is not relished without the stimulant. Meanwhile the digestive capacity is impaired, as alcohol precipitates the pepsin from the gastric juice, and the growth of connective tissue chokes off the gland cells of the gastric mucosa. Even before this the steady and moderate drinker is learning to depend on the alcohol and to eat less real food. For while alcohol quells the sense of hunger and fatigue it is not a real food or anything but a very objectionable and imperfect substitute for it.

From the stomach the alcohol is absorbed into the roots of the portal vein and carried to the liver. This vigilant guardian of the portal of life is at once aroused and its every energy is directed to the interception of the poison. So imminent is the peril that the unassimilated proteids from the food that would ordinarily be intercepted and worked over here before being allowed to pass into the circulation are neglected, and traverse the blood, increasing the quantity of albuminous matter eliminated by the kidneys. Hence the erroneous idea that alcohol increases the elimination of toxins. From first to last the good effects of alcohol are a delusion. It is a paralyzer, a poison, a depressant, a disease inducer, never a true stimulant or a cure. If men want to take alcohol let them do it honestly, acknowledging that it is because they like it, and not try to hide behind the pitiful excuse that they look on it as a useful medicine.

Not the least recommendation of the active principles in medicine is that they enable us to do away with the whole line of alcoholic tonics, the medicated wines, elixirs, tinctures and extracts, which whatever good they may have done proved potent agencies in arousing a dormant taste for stimulants.

Mineral Waters.—The popularity of the natural mineral waters seems to increase. Their benefits lay largely in the rest and recreation a residence at the springs affords, the opportunity to enforce the laws of personal hygiene when the patient has nothing else to do. Apart from this the vogue of the natural waters may be ascribed to the general impression most people have—and physicians are not to be excepted—that there may be something in these waters, placed there by Nature, that is lost when the artificial salts are substituted. The possibilities of suggestion are therefore enlisted in favor of the spring as against the chemist.

The objections to this theory are many and weighty: The waters of springs and wells

are apt to be impure from surface drainage, although I would not go so far as Cyrus Edson, who, while at the head of the New York City Health Board, asserted that there was not a spring or well in the country whose water was fit to drink. I have examined many of the springs, and know of none that are really ideal in the protection afforded the water except those at Poland, Maine. Here the managers have dug down to the granite through which the waters rise, and built walls of granite blocks and cement up to the surface. On these are cemented plate glass cases, so that the only communication with the outside air is through the delivery pipe that carries the flow to its receptacles. Any impurity reaching the water must filter through the solid granite. The result is that these waters are purer than the usual grade of distilled water furnished at some pharmacies.

Compare this with a spring I once visited—it opened in the middle of a pasture field, and at my visit a cow was standing in the spring.

Other objections are the variability of the natural waters owing to rainfall, etc., and the complicated nature of their action from the presence of more than one—often many—ingredients. In one celebrated group of springs the proprietors have found it necessary to issue warnings against the indiscriminate use of the waters because the iron in them is so active that apoplexy may result from their taking by persons not anemic. Alum, sulphur, arsenic and alkalis are not remedies to be taken heedlessly, and even magnesia may do harm. The most celebrated magnesia spring in the country is well known by its habitues to induce insomnia if the water is drank during the evening.

Here as with the drugs of plant origin the tendency of modern science is to substitute knowledge for superstition, credulity and ignorance, and to employ the various salines found in the waters in a state of chemic purity, and combine them when desired in such quantities and proportions as each case may require. As the practice of medicine approximates an exact science and art, chance is eliminated, calculation replaces guessing, and the demand is for exactitude in diagnosis and in therapeutics. This applies as well to the quantity of water that should be taken with the medicinal salts, a matter of no small moment.

The Use of Drugs in Gastric Disease

As in other departments the student of gastric disease finds himself facing pathologic conditions demanding correction rather than disease entities appreciated by their names and calling for specifics directed against such a primitive conception. Instead of a serum for the cure of gastric catarrh we seek a remedy for deficiency of motility or secretion, relaxation of connective tissue, or mycosis; and we learn to begin by supplying to the impaired organ a nutritive fluid freed from that strain of fecal impurity that is so potent in disordering its functional operations. No organ suffers more from the influence of fecal toxemia than the stomach itself. No treatment can be effective that looks to this apparatus alone and not as a part of the body as a whole and as influenced by the state of the remainder. The extreme sensitiveness of the digestive organs is shown by the quick response to strictly psychic impressions. Vomiting may instantly follow a disgusting sight or thought. Regulation of intestinal peristalsis is materially aided by carrying a buckeye.

Useful Drugs.—Following, I give a few brief suggestive notes showing the large number of remedies useful in diseases of this class and some of the indications for their use.

Atropine relieves the pains of gastralgia, and those of gastritis; stops the secretion of the acid gastric juice; and checks the vomiting of the choleraic group. In minute doses it favors bowel action by restraining inhibition; in larger doses controls excited peristalsis.

Anemonin relieves painful dyspepsia with coated tongue, headache and nervous depression; the subacute gastritis of phlegmatics with white tongue, heartburn, nausea, flatulence and absence of taste.

Berberine contracts relaxed connective tissue, and cures gastric dilatation, alcoholic catarrhs, and atony of mucous and muscular elements of the walls of the stomach.

Bismuth salts allay irritability and inflammation, acidity, nausea and all irritative conditions; useful for children and alcoholics.

Brucine restores gastric tone, by its local anesthetic power subduing pain and irritation, and arouses both appetite and the digestive powers.

Calomel subdues all forms of vomiting, especially that due to ptomaines, and it acts as an antiseptic; incites all digestive secretions.

Creosote is a useful antiferment and antiseptic, and allays vomiting dependent thereon; for pains following food; may relieve gastric ulcer.

Cornin is a good general tonic, for periodic attacks, tones the muscular fibers; best when sex weakness accompanies.

Codeine may be used in minute doses for pains or to check peristalsis but there is danger of a habit.

Caffeine in small frequent doses is useful for headaches dependent on gastric disorders or fatigue.

Cocaine eases the suffering from gastric ulcer and contributes to a cure; be careful and do not tell the patient what it is.

Cerium oxalate when chemically pure is the best antiemetic, especially in pregnancy; give small frequent doses.

Ergotin stops hemorrhage of ulcer, as does atropine quicker; the former relieves visceral neuralgias also; full doses.

Emetine is the best remedy to empty the stomach—necessary very often; and in small doses to restore healthy digestive secretions; gr. 1-67 every two hours.

Eucalyptol is a good antiseptic but no more; for fermentation.

Glonoin quickly relieves the pains of gastralgia.

Hydrastine contracts small blood-vessels; for gastric hemorrhages, atony, to tone secretion and muscular activity; for relaxed catarrhs following alcoholism, and for dilatation.

Iodoform for pain and irritability of gastralgia, ulcer and catarrh; dysphagia of tubercular laryngitis.

Iron tannate useful for anemia of gastric ulcer.

Juglandin to incite digestive secretions and keep the bowel clear; like rhubarb but easier to take, and small dose.

Euonymin sometimes seems a specific laxative in many forms of gastric disorder.

Iridin is a good laxative when the tongue is pasty, breath bad, mouth foul, liver sluggish.

Lithium salicylate is useful in fermentative acidity; give small doses very often.

Manganese oxide quickly subdues heartburn and acidity.

Morphine may be given hypodermatically for the acute pain of toxic gastritis.

The yellow oxide of mercury, in minute doses, has been used with success for chronic gastritis.

The bichloride of mercury, gr. 1-134 every hour or two, has succeeded with gastric ulcer and some dysenteries; also for insomnia of gluttons.

Pepsin serves to initiate digestion, when the stomach can carry it to completion. It also has an independent power of allaying irritation and vomiting.

Podophyllotoxin, a small dose at bedtime, often does good; especially if the stools are dark and offensive.

Quassin is the best general tonic for the stomach, and improves the appetite if held to small doses before meals.

Quinine hydroferrocyanide is very useful as a tonic and for periodic forms of gastric troubles.

Rhubarb is invaluable for the innumerable pains and frets of the little ones and incites healthy secretions besides emptying the bowels.

Silver oxide relieves many pains from gastric catarrh, ulcer and neuralgia, and cures ulcer sometimes; good tonic in dilatation; for alcoholics; allays vomiting.

Solanine eases the pains of gastralgia better than bromides and without their disadvantages; subdues nervousness.

Salicylic acid, gr. 1-6 every five to ten minutes, for fermentation, the sort that precedes rheumatism; for acidity.

Sodium arsenate for heartburn or irritation, gastralgia, catarrh, vomiting, especially of drunkards, and for lientery.

Strychnine in small doses for atony, gastrodynia, gastralgia, to give tone to mucosa and muscular fibers, very small doses every ten minutes for acute catarrhs, with headache or nausea; less often for chronic forms; for

alcoholics; with arsenic for alcoholic morning vomiting.

Tannic acid sometimes does good in relaxed states with free secretions.

Zinc oxide relieves the pains of gastralgia that come after taking food; for dilatation from beer; for ulcer; for vomiting of many sorts.

Zinc cyanide relieves most all forms of gastric pain quicker and less objectionably than do opiates, even codeine.

Zinc sulphocarbolate for flatulences, nauseas, acidities, fermentations, mycoses, choleras, ulcers, and the rest.

Calx iodata for sudden and anguishing gastric pains due to acidity, etc., for fermentations, acts almost instantly.

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SOME POINTS ON THE ELECTRO-PHYSIOLOGY OF THE STOMACH

The study of chemistry is so closely related to that of electricity and magnetism that the three subjects cannot well be separated. Possibly it is fairly well known that electricity and magnetism are inseparable, but the intimate relationship existing between electricity and chemistry is oftentimes completely lost sight of. "Like polarities repel, unlike attract," and, so, if two substances have a chemical affinity for each other, it is because they are of unlike polarity.

Acids are electronegative; alkalis and bases electropositive; consequently, being *unlike*, they combine to form another compound. Oxygen and hydrogen are so unlike that they combine ravenously, the compound, on condensation, forming a fluid—water.

According to the law of conservation of energy, no forces are created, none are lost. Therefore, if we gain force in one direction, it must be by the loss of force in some other direction. Hence, chemical energy is not lost, and it is a physical impossibility to have chemical decomposition in any form without the generation of electrical energy. The seidlitz powder dissolving in the glass with effervescence produces electrical energy, making a battery cell if we had some means of conveying it out of the tumbler.

Let us emphasize: *Chemical decomposition always begets the generation of electrical energy.* And, further, the chemical decomposition that *we know* takes place in the stomach makes man a complicated electrical machine.

Everything taken into the stomach is decomposed electrolytically; the acids going toward the blood stream, the alkalis to the mucous lining of the organ. The acids are formed by the oxygen set free in the decomposition of the fluids. Oxygen is an acid maker. The alkalis are the result of the evolution of hydrogen, which is given off in just twice the volume of the oxygen. Hydrogen and the alkalis are irritants and, acting upon the nerves supplying the muscular coat, cause the latter to contract.

To the casual student of this subject it would seem a strange anomaly, inasmuch as the alkalis, during electrolytic decomposition of the stomach-contents, go toward the mucous lining of the organ, that this part should be distinctly acid—as is well known. For the elucidation of this problem we are indebted to Morgan ("Electro-Physiology and Therapeutics," page 231), who has definitely proven that the electrolytic action of the current of an element formed of several moist conductors always is so directed that it continually seeks to destroy the very heterogeneities on which its power depends. Thus the alkali follows the positive, the acid the negative current, the former moving in the liquid from alkali to acid, and the latter pursuing the reverse course. This, then, accounts for the well-known alkalinity of the blood and the acid quality of the stomach.

If the stomach-contents are not in a fluid condition, polarization ensues. Polarization means a reversal of the normal currents, and consequently carries the acids, which are sedative in action, to the muscular walls of the stomach, causing inactivity of the organ. This is why a glass of water oftentimes relieves a bad case of socalled "heartburn."

It is quite a popular belief that all the oxygen the blood receives is from the air taken into the lungs; but it is a fact that at least an equal amount of oxygen comes from electrolysis of the fluid contents of the stomach. Water in sufficient quantities taken

into the stomach at the proper time has as much to do with making good blood as the breathing of fresh air.

It is also a fact that fluids conduct best when warm, and, so, if the water taken into the stomach is very cold, electrolytic decomposition of the contents will be retarded proportionately. As a rule, we do not drink enough water, and that we do drink is too cold.

Is it not strange that we seem to know so little about the treatment of this important organ? I was lately informed by a prominent specialist that in hyperchlorhydria he always administeres an *acid*, with good results. Another physician in this line of work tells me it is the general belief that the muscular walls of the stomach do not respond to electrical stimulus; and still another, in a recent article, observes that hyperchlorhydria is a "myth."

Isn't it time that more study be given to the electrophysiology of the organ?

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COMMENTS ON THE LESSON

With this number we bring to its close another year of hard work. It has been a good year, a pleasant year, for us, and we hope that it has been a profitable one for you. Our only regret is that so small a percentage of the readers of CLINICAL MEDICINE have shown an active interest in the School. The enrollment of students is entirely too small. While we get many letters from physicians who say that they go through the lessons every month, many of these do not send in examination papers. We really should have several thousand students actually enrolled. Why cannot we have these next year? Will you come in, Doctor? Can't you persuade some of your friends to join you?

How can we make the course better? We shall appreciate it if our subscribers will write personally to the Director, Dr. Butler, telling him where they find it deficient and just what they want.

For the information of new subscribers we will say that the handsome certificate of the School is given to any legal practician of medicine who satisfactorily completes one year's work by correspondence, the quality of this being shown by the answers to the examination questions given at the end of each month's lessons. The answers are to be sent to Dr. George F. Butler, Director of the School, for grading. The student may begin his work at any time, but preferably at the beginning of the year. He should study the lessons in the order of their appearance.

Following we give some comments on the lesson on dysentery. Next month we shall continue the study of the digestive diseases.

The Treatment of Dysentery.—Dr. T. H. Line, Marquette, Nebraska, gives us his routine treatment for dysentery as follows:

"As a routine treatment for all cases I have never found anything better than an emulsion of castor oil, turpentine and the yolk of an egg in water as hot as can be borne and used as an enema. While this is an old standby of mine I think lots of flushing the bowels with hot water or hot barley water. If it is necessary to feed a patient I generally do it by enema, using whatever is thought best in a given case. I have long since had it beaten into my head by practical experience that the less that goes into the mouth in these cases the better for them; even water is better given per rectum. However, this is only a whim of my own, but I am in the habit of handling my cases my own way, even though it does not agree with the teaching of some great big fellow in Chicago or elsewhere. Still I am egotistical enough to make the statement that with the same facilities in handling cases I will show as great a percentage of recoveries as does the professor of great reputation, silk hat, kid gloves and patent leathers."

Not a particle of doubt of it. Indeed, in our opinion, there are thousands of country doctors who are doing clinical work of the finest quality, showing discrimination in the selection and skill in the use of remedies which really would put to shame many of the "professors," too many of whom follow in the rut of precedence.

Another Man's Method in Dysentery.—Dr. John Stuart, Monon, Indiana, who always writes us very interesting papers,

says as regards his treatment of dysentery: "My treatment depends upon the conditions present. I generally begin with a good dose of castor oil to remove offending material in the bowels. Then in sporadic dysentery I give: normal tinct. aconite, gtt. 7; normal tinct. ipecac, gtt. 10 or 12; water, ozs. 4. Directions: A teaspoonful every hour. Aconitine and emetin may take the place of the aconite and ipecac. The aconite reduces the fever and the ipecac relieves the irritation. Other conditions are met as they arise. If the tongue is red and moist, indicating an irritable condition of the stomach, I give bismuth subnitrate, in such doses as the case may demand. When the tongue is red, magnesium sulphate in small doses every hour gives quick results. I almost always use a colon tube and wash out the colon. I generally put a small amount of tincture of opium in the water. By this course of treatment I have always had satisfactory results. With the above I almost always give the sulphocarbolates. When there is exhaustion, small doses of strychnine sulphate."

I am sure that the doctor will use aconitine and emetin exclusively, in place of aconite and ipecac, when once he becomes accustomed to them. They assure accuracy of dosage and—results. See the Kansas State Board of Health report on tincture of aconite, published last month.

More About Dysentery.—We will quote again this month from Dr. Theo. Schmalzriedt, of Detroit, Michigan. He writes:

"My usual treatment for acute dysentery may be summed up as follows: Rest, attention to hygiene of patient and surroundings, boiled drinking water, heat locally if agreeable, liquid diet, with such things as barley or rice water, beef juice, milk and lime water, all in small quantity frequently repeated, say two ounces every two hours if stomach will tolerate them. Eliminate fecal accumulation with calomel, laxative salines, enemata of turpentine in warm water, then boric-acid irrigations repeated frequently enough to keep the intestinal tract clean.

"Internally I give the sulphocarbolates. in dosage sufficient to maintain intestinal asepsis. Atropine is used to sedate the excessively secreting intestinal glands; and cicutine, codeine and hyoscyamine to quiet excessive peristalsis. If necessary for pain I use morphine, giving at the same time pilocarpine to maintain skin and kidney function and being particular to secure sufficient intestinal elimination while using the morphine. I use emetin, though not to nauseate, because I believe it to have a corrective influence upon the intestinal secretions. Strychnine I use preferably hypodermically, if needed for lowered vitality, because its use by the mouth seems to irritate the gastric mucosa. For ulcerative conditions I have used silver-nitrate irrigations, grs. 20 to the pint, with doubtful benefit."

We regret that we are compelled to omit a number of most interesting comments. We find these one of the most interesting features of the course and we should be glad indeed to give more space to them. We wish especially to invite our students to describe the methods of treatment which have been evolved in their own work. Case reports are always interesting and we would be glad to have many of them.

EXAMINATION QUESTIONS

1. Write out a brief clinical classification of the common diseases of the stomach.

2. What can be learned by chemical and microscopical examination of the stomach contents?

3. What is meant by the word dyspepsia?

4. What is the role of hydrochloric acid in the digestive process?

5. What is the proper relation in the quantities of fats, carbohydrates and proteids?

6. What do you mean by the word "calorie"? How many calories are required daily by a man of average weight doing average work?

7. How much fluid should a person in average health take daily, and in what form? What directions do you give about drinking at or near the meals?

8. When should alkalis be given to dyspeptic patients and in what form?

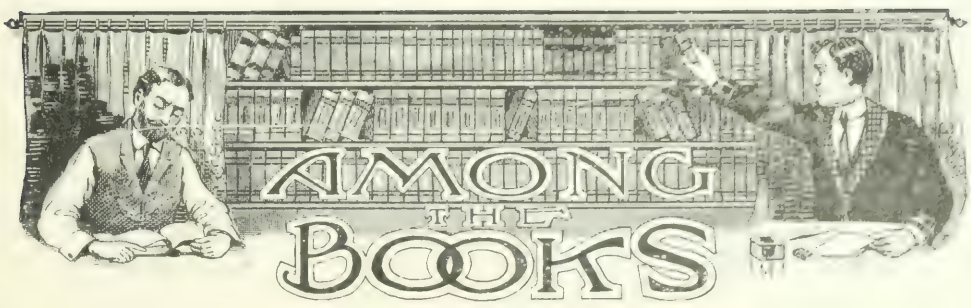
9. To what cases would you give acids and how?

10. Outline the therapeutic application of the digestive ferments, telling of those you most commonly use?

11. What remedies are most useful in cases of gastric irritability, and how should they be used?

12. What remedies may be employed to check fermentation and gas formation?

13. What value, if any, have the alcoholic beverages in the treatment of diseases of the stomach?



COOPER'S "SEXUAL DISABILITIES"

While our November number containing the review of this book (page 1261) was on the press, there came to hand a copy of the second edition of the same, enlarged to 204 pages. The text of the first edition has been revised, and new matter has been added to most of the chapters. The price of the new edition is $2.00. We endorse the little volume for its excellent treatment of a difficult problem and hope that it may prove of benefit to many physicians, and thus to their patients as well.

BONNEY'S "PULMONARY TUBERCULOSIS"

Pulmonary Tuberculosis and Its Complications, with Special Reference to Diagnosis and Treatment, for General Practitioners and Students. By Sherman G. Bonney, A. M., M. D. Second edition, thoroughly revised. Philadelphia and London: W. B. Saunders Company. 1910. Price, cloth, $7.00 net.

The first edition of this excellent textbook on pulmonary tuberculosis was published but two years ago, in July, 1908, and experienced a reprint in August, 1909. The fact that an entirely new and revised edition was called for so soon, and still more, the further fact that the author has found it possible, besides his many other duties, to examine and sift the enormous current literature on the subject in this brief space of time, is a cause for congratulation. Only one who, like The Bookworm, has attempted to keep track of and master this immense mass of literature, a surprisingly large proportion of which is of interest and importance, can appreciate the splendid result attained in the volume now before us.

Dr. Bonney has written primarily for the general practician and it would, therefore, be useless for the specialist to expect detailed discussions, with the complete literary evidences and references, of moot questions. The subject-matter, however, has been presented fairly and conservatively so far as it has been accepted as settled, and questions which are still *sub judice* have received an equally fair treatment, although they could, of course, not always be discussed at length.

The author calls attention to the fact that sociologically the prevention and limitation of tuberculosis has, of late years, been accorded more attention than the treatment and, perhaps, cure of the tuberculous. He points out very justly that sight has been lost of the fact that the patient with advanced open tuberculosis is far more in need of instruction and care to prevent his being a source of danger to his surroundings than one in the incipient stages. And, yet, it is the latter who gets most of the attention, most of the clinical and sanatorium advantages and privileges, while the former is avoided and is, as the author correctly says, *persona non grata*. To quote:

"The responsibility for the prevention of consumption rests directly with the medical profession in its advisory capacity on matters pertaining to public health. The physician, however, in the execution of so responsible a trust, should be mindful of his duties to consumptives as well as to society."

The reviewer cordially subscribes to Dr. Bonney's ideas as to the methods of procedure which the prophylactic and humanitarian efforts of society with reference to consumption should embrace. They are (p. 683):

1. Compulsory notification and registration of all cases of pulmonary tuberculosis.

2. A personally conducted supervision of the consumptive and his environment, including an elaborate system of education.

3. The extension of material aid, when necessary, according to the varying needs and requirements of differing classes.

4. The dissemination, to the general public, through the medium of various channels, of authentic official information regarding the prevention of consumption.

5. The administrative control of all important factors entering into the problem of etiology and prophylaxis.

Under the last caption we were impressed with the author's ideas on "tuberculosis and traffic" (Chapter XCII), in which he offers important suggestions concerning the supervision of sleeping cars serving for the transport of consumptives.

In a new book on pulmonary tuberculosis the practician usually turns first of all to the chapters on treatment, while the student of this malady looks up the discussion of moot questions which are still under discussion.

The sections on Treatment, which embody the results of Dr. Bonney's large personal experience, comprise the last fourteen chapters of this work, and, as is but natural, the greater space is devoted to the discussion of the general hygienic, dietetic and climatic means of managing patients ill with tuberculosis. In condemning the many ill-advised and poorly supported "cures" which are even today advanced for a "get-well-quick" result, as it were, the author says truly:

"While consumption is indeed curable, it is essential for the public to be informed that enduring success in this respect is not as beatifically simple as might be supposed from some of the current literature. It is desirable that the people should be thoroughly aroused from the lethargy and resignation prevailing in former years as to the fatality of consumption; but with the dawn of renewed hope, it is highly important for them to understand that the effort to regain health is fraught with no slight degree of individual responsibility, and that success may be attained only through wisely directed personal endeavor."

In accordance with this exceedingly important consideration, the author has given us an excellent, well-thought-out and well-tried guide for the management and treatment of tuberculous patients.

When discussing the question regarding open-air and climatic treatment, Dr. Bonney denies the justice of the assertion frequently made that any fresh and pure air, no matter where, is equally effective and that climatic influences are of entirely subordinate importance. He is very positive that climatic factors play an essential role and that the benefit derived from an outdoor life is enhanced in suitable climates.

It is not necessary here to discuss the advice given for the treatment of special conditions and symptoms. These must be studied in detail in order to be of advantage to the practician.

Concerning the specific or etiological treatment of tuberculosis, the author is not enthusiastic. In contrast to other tuberculosis physicians who, by means of active immunization, have been able to obtain more prompt and permanent results than was possible by general methods alone, he concludes, from his experiences with Koch's bacillus emulsion only, "that some benefit may be expected to attend the employment of such an agent in a fair proportion of cases otherwise adjudged incapable of improvement."

Unlike another textbook on tuberculosis which The Bookworm felt obliged to criticize severely, Bonney's book is excellently indexed; it is also profusely illustrated, and in general well gotten up—but, then, the books published by the Saunders Company are always beautiful in their mechanical execution.

This work by Bonney, on pulmonary tuberculosis, undoubtedly is one of the most complete and valuable textbooks for the general practician, and since the subject is of such far-reaching importance, the reviewer recommends its study cordially to our readers.

It is especially suited to the needs of the general practician.

H. J. ACHARD.

WALSH'S PHYSICIAN'S HANDY LEDGER AND CALL BOOK

An excellent combined set of physicians' account books is provided in Walsh's Physician's Call Book and Walsh's Physician's Handy Ledger. The first is much like the usual "visiting list"—a handsome, morocco-bound pocket-book, with flap, containing blank pages for recording calls and charges, and the dose table and other emergency information ordinarily supplied in such books. This is the day-book of the system. The Handy Ledger is 7 by 10 inches and is so arranged that the record of visits made in the call-book may be transferred to it by a stroke of the pen, thus reducing the work and trouble of keeping accounts "charged" to a minimum. One page in the ledger gives ample room for recording a patient's account for a year or more.

The price of the Call-Book is $1.50; of the Ledger, for 600 patients, $3.50 and for 1200 patients, $7.00. Address Ralph Walsh, M. D., 1807 H. St., Washington, D. C.

FRIEDENWALD AND RUHRAEH'S "DIET"

Diet in Health and Disease. By Julius Friedenwald, M. D., and John Ruhraeh, M. D. Third, thoroughly revised and enlarged edition. Philadelphia and London: W. B. Saunders Company. 1909. Price, cloth, $4.00.

Among the many textbooks on diet the one by Friedenwald and Ruhraeh occupies an acknowledged position, inasmuch as a third edition has become necessary in the short space of five years since its first publication. It offers in concise yet clear and attractive form all the important information concerning the theory and practice of dietetics. After a consideration of the various foodstuffs and their different modes of preservation and preparation, the chapter on Special Dietetics, if we may call it so, is introduced by the discussion of infant feeding, of diet for the aged, diet in pregnancy, etc: and this is followed by a description of the various diets adapted for diseases, both general and organic.

Interesting chapters are those on dietaries in public institutions, in hospitals and prisons, in the Army and Navy, those on recipes, and finally the Rapid Reference Diet-Lists.

The book is full of valuable and interesting information and deserves closer study than we have been able to give it. It is with regret that the reviewer has, among so many excellent things, found repeated (p. 187) the old fairy story that Koch had made the statement in 1901 that bovine tuberculosis could not be transmitted to man. It appears as though the many discussions on the subject, and especially the recent Washington Tuberculosis Congress, should have afforded an opportunity of consulting the original documents of the controversy, when it would have been ascertained that Koch was never guilty of making such a sweeping statement. However, this is a matter for special discussion, and does not interfere with the great value of the work in the matter of dietetics.

DOCK'S "HYGIENE" AND MORALITY

Hygiene and Morality. A manual for nurses and others, giving an outline of the medical, social and legal aspects of the venereal diseases. By Lavinia L. Dock, R. N. G. P. Putnam's Sons, New York and London. 8vo, 200 pp. 1910. Price $1.25 net.

This is a most important book, not only for nurses, but at least equally so for the "others", not excluding physicians. We would urge its careful study especially upon general practicians who lack the time to follow up the special literature upon the subject.

After a brief chapter describing the venereal diseases, the author considers in detail the question of prostitution and its regulation. She shows eloquently the difficulties and ill results of regulation of licensed prostitution, although her argument is singularly free from the so frequent hysterical outcries that license is wrong yet which do not offer a better remedy. The author describes fully the attempts made, especially abroad,

to regulate prostitution and thus diminish the frequency of venereal diseases, and supports her contention by figures that all regulation has so far failed of the objects. The terrible revelations of the last twenty years, concerning the white-slave traffic, are reproduced, and the deduction is drawn that this traffic is a necessary sequel of regulation.

The remedy proposed is far-reaching and complicated. The author fully realizes the difficulties barring all attempts at limiting the spread of venereal diseases and goes fairly to the bottom of the problem. This can, as a matter of course, be solved only by later generations, still it is incumbent upon us of today to lay the foundations for this important work, by the instruction, first, of grown-up and growing-up people, and then by educating our children from the very cradle.

It is not here the place to discuss this difficult and involved problem editorially. But we submit that it is the duty of every physician to inform himself as far as possible of its nature and of the attempts made to solve the same. It is our duty to take a definite stand in the question and to assist social workers and educators more than hitherto in being accorded a prominent position in teaching the people, adults and children, the truth concerning sex and venereal diseases.

THE PRACTITIONER'S CASE-BOOK

The Practitioner's Case-Book, for recording and preserving clinical histories. Prepared and arranged by The Editorial Staff of The Interstate Medical Journal, St. Louis, 1910. Price $2.00.

This quarto volume offers a simple and efficient means for the general practitioner of recording and preserving his clinical histories. There can no longer be any doubt about the necessity of keeping notes of all cases treated, not only as a matter of record for a more satisfactory attendance on a running case, but for future reference in the event of later disease; then as a record for possible legal complications, for the collection of dues, etc., and, finally, as a basis for clinical reports for publication. The physician who makes notes of the condition of his patients, at the time of consultation or by the bedside, soon acquires a reputation for careful work, while he does not have to rack his memory for the details of earlier treatment, nor need he ask his patient what medicine he has had—a question which always makes a bad impression and lays the physician open to the reproach of forgetfulness and lack of interest.

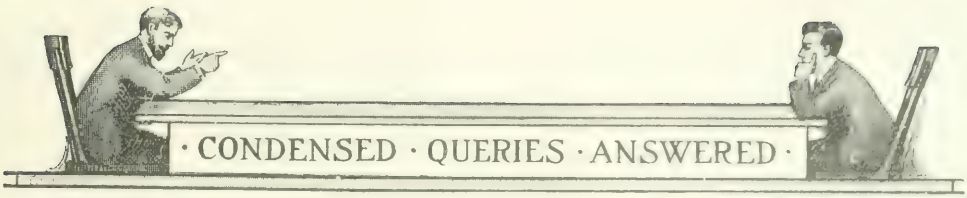
For physicians who like to preserve their case-records in book form this case-book will prove useful. The important data for history, symptoms, treatment, etc., are all well provided for. The specialist, of course, may want another set of questions, while many physicians may prefer the card index; personally, The Bookworm has always preferred blank cards (3 x 5 in.) for his records, putting down whatever appeared to him of interest and importance. But whatever the individual predilections, this Case-Book undoubtedly is excellent in its own field. The clinical charts are sufficiently varied for all needs and are perforated for easy removal, if desired.

VISITING LISTS

The Practitioner's Visiting List for 1911. Philadelphia, Lea and Febiger. In four styles; weekly dated, for thirty patients; monthly, and perpetual for thirty or sixty patients weekly. $1.25 net; with thumb index $1.50 net.

The Medical Record Visiting List for 1911 New York, William Wood and Company.

We take pleasure in announcing the editions for 1911 of these visiting-lists which have become a standard for this style of record. Both contain much valuable information to which the physician may want to refer hurriedly, such as dosages, incompatibles, weights and measures, treatment of poisoning and other emergencies, etc. The little books are substantially bound in red leather, with flaps and pockets, pencil and other conveniences. Our readers who have been in the habit of using visiting-lists wil do well to act on this reminder and supply themselves with the copy for the coming year. We trust that we may be excused from expressing a preference, since such could only be founded on personal predilections.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5618.—"A Short-lived Typhoid-Fever Attack." In my opinion there is a poor history to base a diagnosis of typhoid fever on in this case, and I was surprised to find that the editors of the journal agree with the diagnosis. Why did not the doctor make a Widal test and an Erhlich-diazo test? The doctor found her on the 26th with a pulse of 122 and in five days it was 80 and no fever. This in my opinion was a case of acute auto-intoxication. I have had such cases. I am a great believer in the sulphocarbolate treatment in typhoid fever, and while I have had better results under this treatment than any other, I will say that some typhoid cases die, and I cannot abort or cure them in a week. I am talking of typhoid-fever cases now. I believe the sooner doctors get down to business to diagnose cases properly, then and only then shall we be able to treat our cases intelligently. H. H. ROTH.

Murphysboro, Ill.

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[A business-like critique, which is appreciated. We agree with Dr. Roth on the importance of using the laboratory methods of diagnosis—and every other method which will contribute to accuracy. In the case criticised, however, the doctor should be reminded that the patient had been sick two weeks, possibly more, before the physician was called, so that no claim is made that it was aborted, though there is an abundance of clinical evidence that the disease may be aborted, if seen at its inception. This case undoubtedly ran the classical three weeks of cases of the mild type. The abdominal tenderness, gurgling in the iliac fossa, rose-colored spots, enlarged spleen, etc., tend to confirm the diagnosis. But it is true we should not stop with these.—ED.]

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ANSWER TO QUERY 5619.—Answering your query relative to "Insect Stings and Snake Bites" in the September number of CLINICAL MEDICINE, I desire to call attention to the action of antiformin.

The Imperial Department of Health of the German Empire and Prof. Klebs, first called attention to this fact which is borne out by my experience with the bites of the crotalus (rattlesnake) of Florida and Georgia. This preparation combines chemically with the venom, neutralizing it, has an antiphlogistic and anesthetic action, promptly alleviating the subjective symptoms.

An incision should be made and a 10-percent aqueous solution should then be applied. The other measures outlined in the September number are valuable as an adjunct treatment.

Scorpion stings should yield to this treatment as rapidly as snake bites and I would be glad to have the doctor try these means and report the results in the Journal.

J. M.

—

[The composition of antiformin, a German proprietary preparation, is similar to that of the well-known Labarraque's solution. It contains about 7.5 percent of free sodium hydrate and 5.2 percent of bound chlorine. It is said to be a very active disinfectant, in a 2.5 percent solution destroying most bacteria within five minutes; tubercle bacilli, however, resist its action, this fact supplying a con-

venient method of differentiating this micro-organism from others. Antiformin is much used in the disinfection of drinking water, urinals, stools, etc.—Ed.]

Answer to Query 5624.—I can beat you. The patient will not only be cured of the "fidgets" but the general health will be greatly improved by metallic zinc, five grains of the 6x trituration three times a day.

J. B. S. King.

Chicago, Ill.

Answer to Query 5627.—"Sodium Sulphocyanide." You say the drug is practically unused in medicine in this country. Some time within the last three years I have seen in *The New York and Philadelphia Medical Journal* at least two articles by different authors on the use of sodium sulphocyanide in arteriosclerosis and to reduce blood pressure in hypertension. One author gave the dose as 1-2 grain and one as 1-12 grain. Both claimed prompt and remarkable results from its use in the hypertension of Bright's disease, chronic uremia and arterioscerosis. I have never tried the drug, but cannot see how harm could result from the careful use of it.

G. A. Graham.

Kansas City, Mo.

[Thank you, Doctor, very much for your interesting note on the use of the sodium sulphocyanide in this country. If by any chance you should at your convenience unearth the reference, which you cite from memory, we should feel ourselves under great obligation indeed, if you will supply us with it.—Ed.]

Answer to Query 5630.—I was interested in reading the criticism of J. L. A. of the "enormous dose of codeine in the anodyne-for-infants granule." It may interest the doctor to know that I have frequently given twenty of these in an hour, to a six months' old child, and not infrequently as many as thirty to a child under one year, where it was indicated. Children who take them for a time soon become very tolerant and the dose must be increased to get results. One infant of six months took for a week 1-12 grain codeine with 1-250-grain hyoscyamine every three hours. Dosage cannot be worked out on a sheet of paper. Best place to work it out is on the patient under treatment. I have a girl eight years old under treatment for post-diphtheritic paralysis, who for three weeks took 1-6 grain of strychnine arsenate daily. She is at present taking 1-30 grain every four hours with lecithin and nuclein, and with splendid results. She wouldn't be so far advanced if her dose had been figured out instead of worked up.

A. R. G.

New York, N. Y.

QUERIES

Query 5646.—"Is He a Cretin?" S. Nebraska, has in his charge a boy 9 years old who since his second year has been "wrong;" development is that of a six-year-old, yet his contour good. The lower jaw drops, and he "drools" constantly. He has had no control of bowels and bladder. When small, enemas were used every day. Mentally the boy is not as he should be. Thinking him a cretin the doctor placed him on thyroid last fall, 1 1-2 grains thrice daily; the pulse slowed to 100 and has stayed at that point, while the thyroid was increased to 4 1-2 grains three times a day. For two weeks in winter he controlled bowels. Bladder he now controls all the time.

Test the reflexes and send a specimen of urine and blood-smear to the laboratory. What is the family history? Was there any injury at birth, any luetic taint in parents, or noticeable thyroidal abnormality?

If this child is a cretin (which seems probable) we would suggest that he be given a salt sponge-bath daily and kept in the open air as much as possible. Fresh thyroids may be chopped up and given in sandwiches or *au naturel* with a little salt. Nuclein should be pushed for one month in ten-drop doses, morning and night, and arsenic iodide and iron iodide given one hour after meals, day and day about, for a like period. At the end of a month exhibit thyroid extract or iodothyrin, t. i. d., and calx iodata,

phytolaccin and rumicin, morning, noon and night for another month. Flush the intestine every third day; dilate the sphincter ani; circumcise; and if lime salts are markedly lacking, give calcium lactophosphate, four times daily for ten days, resting ten days and repeating. We cannot lay enough stress on the necessity for *alternation* of these remedies.

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QUERY 5647.—"Chronic Bronchitis? Hepatic Abscess." T. A. M., Indiana, desires treatment for a child ten months old who has had "a very deep cold since last August, and has been treated by different doctors from the beginning." Patient is now on calx iodata, 1-2 grain every three hours, with calomel, 1-10 grain, four times daily.

Another case is that of a boy seven years old, who has had abscess of the liver for about three months. This patient also has been treated by other physicians until recently. The abscess is "about the size of a goose egg," and firm.

The doctor also desires to know how much calx iodata should be given a child one year old—how often and how long?

We cannot possibly prescribe intelligently for the first patient without a much clearer idea of clinical conditions. Examine the child and give us some idea of pulmonary and heart sounds, pulse-rate, temperature—in fact, a concise but full clinical picture. A specimen of sputum secured after coughing should be sent to our laboratory. It might be well to accompany this with a specimen of urine.

If the abscess is at all extensive it should be drained. Stools and urine should be examined and a blood-smear made. In the meantime give nuclein in rather large doses hypodermically, or let it be absorbed from the buccal mucosa, at the same time administering echinacea, iridin and calcium sulphide four times daily, with juglandin before and chionanthin after food. We certainly should open and drain that abscess if it exists, but if you can detect a firm nodule the size of a goose egg you most likely have a neoplasm of some kind and not an abscess to deal with.

The dosage of calx iodata for a child one year old varies according to conditions. In croup a child may receive 1-3 grain every fifteen minutes; in ordinary bronchial disorders 1-3 grain three times daily would be full dosage, one-half that quantity (in solution) sufficing in most cases. Do not give calomel four times a day, Doctor, but exhibit small doses at hourly intervals till one grain is taken. Then flush the intestinal tract with a laxative saline.

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QUERY 5648.—"Syphilitic Warts." J. E. W., Nevada, is treating a man, age 50 (a bookkeeper, and very bald), who denies specific infection. Four years ago he noticed a hard spot growing on one of his fingers, but paid no attention to it until about six months ago, when other places began to develop. The skin becomes calloused and cracks appear in areas about the size of a 10-cent piece. The removal of a piece usually leaves behind a very sore spot, until it heals over. He has about fifteen of these in all on the fingers of his two hands and one is beginning on the palm of the left hand. He admitted a "non-specific sore."

At present the patient is receiving about 7 1-2 grains of potassium iodide a day and a carbolic ointment for local use. This man has had more or less "stomach trouble" (as he puts it) for years, but never any treatment. He weighs 200 pounds; he has a soft skin.

We are inclined to think (though the data are insufficient to undertake a *real* diagnosis) that you have to deal with a specific condition, i. e., syphilitic warts. Anyhow, we should put him on mercury biniodide and calx iodata, adding iridin in rather full doses. Touch the nodules with specific thuja, and once a week apply cotton, saturated with potassium-iodide solution, and drive it in by cataphoresis. Keep the intestinal tract thoroughly clean, and once or twice a week have the patient sponge his entire body with carbolated epsom-salt solution (epsom salt, one ounce; water 1-2 gallon; carbolic acid, 20 minims). If the patient is able, and can spare the time, it would be well for him to go to Chicago, or some other large city, and have a Wassermann test made. You would then know definitely what you have to deal with.

QUERY 5649.—"Vertigo Following Typhoid." E. D. J., Oklahoma, is treating a girl 18 years of age who has been troubled with "dizzy spells" for six years. They last about thirty minutes and have occurred since she had typhoid fever six years ago. The doctor asks what we should recommend.

If you will give us a clear idea of clinical conditions and send a specimen of the girl's urine we shall be able to make some intelligent suggestions. The positive therapeutist diagnoses closely and gives the right remedy for the condition present in small repeated doses to effect—remedial or physiological. This is the reason for his success.

Pay particular attention to the spine, see if there are any areas of anesthesia or hyperesthesia; note condition of tongue; test the reflexes, especially ocular and patellar. Is there any tenderness over the cecum, constipation or loss of weight? How often do the attacks appear, or do they occur regularly? Describe any known exciting cause such as fulness of stomach, amenorrhea, etc.? Note the heart-sounds and give pulse-rate. The patient is probably anemic and autotoxemic.

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QUERY 5650.—"Sunstroke. Pott's Disease." M. H. B., South Dakota, has recently had to care for three cases of sunstroke, none of them very serious. They received salines, intestinal antiseptics and strychnine. They now [presumably some time after recovery—ED.] complain of dizziness, faintness and weakness and cannot endure the sun. Two of the patients have weak and irregular pulse. Treatment is desired.

The doctor also has a case of Pott's disease of the spine. Brace is to be applied. The child is four years old and a quarter-blood Indian. It is fairly well nourished. The deformity is the size of a man's fist, involving upper half of dorsal vertebræ. Patient walks on all fours or lies on face on pillows. What is the best *medical* treatment?

The three cases of "sunstroke" would hardly require medicinal treatment by the time this reaches you. In all such cases for several days there is more or less intolerance of heat, but this gradually passes away. Of late physicians have been securing remarkable results in cases of sunstroke from the use of hyoscine, morphine and cactin in proper proportions.

Of course, Doctor, you know as well as we do that there is a vast difference between "sunstroke" and heat prostration, and the treatment, after the urgent symptoms are controlled, must in every case be symptomatic.

There are three varieties of heat-stroke: (1) The asphyxial, in which death may be instantaneous, but recovery, if it takes place, is usually complete. Symptoms are cardiac and respiratory failure, slow breathing, gasping, coolness of the skin, insensibility. These symptoms present after exposure of head and back of neck to the rays of the sun. (2) The hyperpyrexial form. This variety may result from exposure to any heat and come on after such exposure has existed, or even at night. Some premonitory symptoms are usually noted, such as vertigo, nausea, insomnia, high fever, diarrhea or frequent micturition. Insensibility comes on gradually, patient breathing stertorously. There is restlessness, the face is suffused with blood or cyanotic; pulse quick, temperature high (106° to 108° F.). Early the pupils are contracted, later dilated. Recovery from this form is seldom complete, the patient being unable for some time, or ever afterwards, to endure exposure to excessive heat in any form. Loss of memory, pain in the head, paralysis, localized tremor, and even insanity may result. (3) The syncopal form, or heat exhaustion. Here we have merely intense prostration, cool, moist skin, and lowering of the body temperature. Recovery is generally complete and uneventful.

For congestion of the head glonoin, followed by veratrine, with saline purgation, is usually given; cold epsom-salt sponge-baths, hyoscine, morphine and cactin hypodermically; cold pack. For the after-effects, small doses of atropine valerianate with caffeine. Patients with a weak and irregular pulse call for cactin and nuclein, with minute doses, perhaps, of strychnine arsenate. Keep the patient cool, his skin active and the bowels open.

There is little "medicinal treatment" for Pott's disease. It may be of either tubercular or syphilitic origin. You do not state whether the sphincters are involved or the reflexes affected. We cannot, therefore, see how far caries has advanced or whether an abscess coexists. Does the patient complain of severe pain? Is there any palsy or numbness of extremities? Give us a clear clinical picture and we may be able to help you.

In the meantime, Doctor, study some of the recent works on diseases of the nervous system, especially the chapters on compression myelitis. Search carefully for tuberculous or venereal taint. Rest and support to the spine instituted early may prevent paraplegia. When paralysis exists, rest with extension are the most effective remedial agents. Some cases have been cured by enforced recumbency maintained for weeks and months. Hyperextension during recumbency is advocated by many. Fresh air is essential. The child should receive good nutritious food and, if tuberculous, nuclein with the arsenates of iron, quinine and strychnine, or the nucleinated phosphates with calx iodata. If there is a luetic taint specific treatment should be instituted promptly. We would be inclined under the circumstances to push nucleinated phosphates with calx iodata. Bovine blood (defibrinated) with each meal might also prove beneficial.

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QUERY 5651.—"Medication in Hodgkin's Disease." I. N. M., Tennessee, desires to know if any treatment, with or without arsenic, is of real value in Hodgkin's disease? He has a patient, male, aged fifty, family history good, occupation farmer who has been failing in strength for eighteen months. No marked loss of flesh. Twenty days ago the cervical lymphatic glands on one side and one inguinal gland began to enlarge. Temperature of 100° to 102° F. All the cervical and inguinal glands are now enlarged together with liver and spleen. Patient is confined to bed with a pulse of 108, and there is great prostration and dyspnea on moving the body. The urine is loaded with phosphates and albumin. The glands in the neck are much larger, hard as a bone and fast to the skin. The doctor realizes that he may have to deal with a lymphosarcoma but makes a diagnosis of Hodgkin's disease. He is now giving arsenic to toleration.

You are, of course, familiar with the fact that in pseudoleukemia (Hodgkin's disease) the enlarged glands are more frequently soft than hard, and as a rule, the skin above the glands can easily be raised. The swellings are painless, but pressure symptoms may appear comparatively early; the internal lymph glands become enlarged before those in the cervical region. When the thoracic glands are enlarged the patient suffers from respiratory disturbances caused by direct pressure upon the larynx, trachea, bronchi or the recurrent laryngeal nerve, or to the decreased erythrocytes which are the necessary oxygen carriers in the function of respiration. More or less difficulty in deglutition results from pressure upon the pharynx or esophagus. This symptom is, however, rarely observed.

The extreme hardness of the glands in your case and the rapidity with which this symptom developed makes the diagnosis a little questionable. Of course the internal glandular enlargements may have been present for some time before the cervical glands and other superficial chains become involved.

The urine in Hodgkin's disease shows nothing unusual provided no complications are present. Uric acid is usually present in large quantities, however, such excess being due to the increased destruction of the leukocytes. You do not mention hemorrhages, nasal or subdermal. In nearly all cases of Hodgkin's disease petechiae or larger effusions of blood will be observed.

Your patient is probably tuberculous. We now know that in most cases of so-called pseudoleukemia presenting the typical picture, tuberculosis of the glands exists. In still other cases a postmortem reveals sarcomatous changes — lymphosarcomatosis. Virchow describes a hard form of lymphosarcoma and we are inclined to think that your patient presents this type of the disease.

Very little can be done for him, or in fact for any patient over forty. You should send a sample of this man's blood to the laboratory and have a blood-count. This will clear up

the diagnosis in short order. We should be inclined to give arsenic iodide, gr. 1-67 to 2-67, after each meal; iridin, gr. 1-3, phytolaccin, gr. 1-3, stillingin, gr. 1-3, an hour before food. The arsenic iodide may be alternated with arsenous acid week and week about, or you may use sodium cacodylate. The dose for adults is 0.025 to 0.1 Gm.

If you desire a more pronounced impression arsenic may be injected subcutaneously or directly into the glandular substance. A 10-percent solution of sodium cacodylate in sterilized water is used for a week, one-half of a hypodermic syringe-full being injected. Stop injections for a few days, then resume until, after a few days' intermission, the dose is increased to an entire syringe-full. Inunctions of sapo kalinus (fluid potassium soap) may be advantageously employed. A teaspoonful or more should be rubbed in daily with a pledget of cotton. When redness and burning of the skin appear rubbing is stopped and is not resumed until the symptoms disappear. Iodoform may advantageously be added to the soap or a saturated solution of iodine in glycerin applied after the rubbing

If you have a wall-plate a solution of potassium iodide may be driven in by cataphoresis. We need hardly point out that the patient should be fed upon the most nutritious, easily assimilated foods and elimination, dermal, intestinal and renal, must be maintained. Perhaps the x-ray treatment promises more than any other curative method known to the profession at the present time.

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QUERY 5652.—"Bismuth as a Teniacide." M. C. H. B., South Dakota, reports the case of a child three and one-half years old (female) who had tapeworm two years. Was delicate when weaned; liked and thrived on raw beef and was given plenty of it until she began to pass segments of the worm. Three unsuccessful efforts were made to expel the parasite, the child vomiting the medicine, though every precaution was taken. After the last attempt, the child's stomach being upset, pepsin, hydrochloric acid and bismuth subnitrate were given and in two weeks the worm was passed, colored deeply by the bismuth, as were the feces. It was a beef tapeworm. What part did the bismuth play in expelling the worm?

Boy, age 12 years. At six months had prolapsus of rectum. At nine years (with no treatment but constant care) case had improved until a very slight prolapsus remained. It was thought best to cure the boy, so he was operated upon by an army surgeon with the actual cautery. In two months he was not able to sit up. There was constant vomiting; stricture of rectum, nothing could pass bowel. Was operated upon by an Omaha surgeon. It was quite a severe procedure. At present time (three years after last operation) a stricutre seems to be forming. It was beginning five months ago when a soft rubber bougie two inches in circumference was first used. This caused some pain at first. Now this causes no discomfort but one 2 5-8 inches in circumference causes some pain and the stricture can be easily felt about 1 1-2 inches from anus. Will anything cause absorption of this stricture?

Tenia, as you know, are sometimes voided after the exhibition of a few doses of calomel, rhubarb, magnesia, or castor oil, even. In this case the worm had probably been affected by the teniacide previously given and the bismuth subnitrate completed his discomfiture. That the drug affected the parasite profoundly is evidenced by the fact that it was discolored. As you know, bismuth forms a coating over the intestinal mucosa and this deposit would prove, we think, very objectionable to the worm. We have heard of tapeworms being voided by patients receiving bismuth for other disorders. Some experiments in this direction might prove instructive.

In the case of stricture we should be inclined to give thiosinamin a trial. A sterile glycero-aqueous solution will prove the most available form, each ounce containing 75 grains of the drug. Five to ten drops may be given in a little weak alcoholic vehicle. If the little fellow can stand a few semi-weekly hypodermic injections of ten minims so much the better. We would also suggest the use of a suppository containing pepsin, papayotin and pancreatin. These should be incorporated in a vasogen and glycerin paste. The galvanic current might be used to obtain, cataphoretically, the action of thiosinamin.

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